

Public Utilities

FORTNIGHTLY



VOL. XVI; No. 4

AUGUST 15, 1935

The Rickety TVA Props

Flood control and navigation, the only constitutional justification, in the author's opinion, for the pouring of millions of the taxpayers' money into the Tennessee valley.

By HERBERT COREY

I MUST apologize for beginning this article with an old story. But it is such a very good old story and it fits in so neatly that I cannot resist it. Once upon a time a timid English curate was an overnight guest of his bishop. In the morning the dignitary and the curate sat down to breakfast together. The curate chipped his egg.

"What's the matter?" growled the bishop. "Isn't it a good egg?"

"Some of it," replied the curate, smacking his lips, "is very good indeed."

After a fairly comprehensive tour of the Tennessee valley and its outlying parts I feel about the plan of the Tennessee Valley Authority just as the curate did about his egg. Some

parts of its are very good indeed. Considered as a whole the egg is addled. It is a perfect example of the lengths to which social theorists will go when in possession of practically unlimited power and practically unlimited money. No better generalization of its aims may be found, perhaps, than in this quotation from a review by Theodore Hall in the *Washington Post* of a book recently published in praise of the TVA.

"How commonly is it realized," he asks, "that the total implications of TVA mean a thorough going, wholly unparalleled spearhead into a brave new world?"

THAT is precisely true. The ultimate aim of its projectors is to

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create a new social and economic order in a region containing 44,000 square miles and 2,000,000 human beings. If their final ambitions would be realized this region would become in effect the forty-ninth state, protected by a cultural and political ring fence against the intrusions of the Yahoos on the other side of the barrier. Its citizens would have the double advantage of electric power sold by the state at a price so cheap that competition with its manufacturers would be almost impossible and of whatever part of the Federal taxes might be needed to make up the region's deficit. That statement may seem incredible but it is accurate.

If the TVA's plans had been stated in those terms it is unlikely that Congress would have enacted the legislation under which it is operating. But they were enveloped in windy generalizations of promise for the common good. It was not until two recent happenings revealed what is going on under the TVA's cloak of loving-kindness that the public began to understand. The first was the fact that the Military Affairs Committee of the House of Representatives refused by a nonpartisan vote of thirteen to twelve to favor legislation extending the TVA's powers. Comptroller General McCarl was called before this committee and he criticized in the most severe terms the methods and bookkeeping of the TVA.

THE second happening was the unanimous decision of the Supreme Court in the *Schechter* and other cases. That decision in effect was:

Until the Constitution is amended its present phrasing is the governing law of

the United States. It may not be ignored because of the presumed existence of an emergency. If it failed to function in the presence of an emergency it would be valueless.

Whatever parts of the TVA operations are unquestionably within the frame of the Constitution must then be considered the legs which carry the burden of reform and social legislation and cultural betterment and agricultural education and demonstration dairies and model towns and cottage industries and rural refinement and boondoggling and the obliteration of county lines and the preservation of game and the improvement of fishing and the creation of forest reserves and the almost infinite number of other good-will enterprises which are included in the plan. These phases will be considered in greater detail somewhat later. For the moment attention may be concentrated on the constitutional props which support this tremendous load at the cost of the general taxpayer.

THEY are two in number and only two. One is flood control in the Tennessee valley. The second is the improvement of navigation on the Tennessee river. In the heat of argument the TVA maintains that a third constitutionally visaed prop may be found under the title of national defense. This would be more convincing if any one of them had ever been able to tell what it means. Not one ever has. But the place for that must be a little later.

The whole TVA plan may cost one billion dollars. As a matter of admitted fact no one of the three members of the Authority or of their sixteen thousand subordinates knows what it will cost. It may go on for a

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century if Congress continues to support it. It might go on forever. The fact must be emphasized again that all this tremendous and chaotic program depends on the fact that two of its activities come within the frame of the Constitution.

One is flood control.

The other is navigation improvement.

If I have read with understanding the decisions of the Supreme Court and the rulings Comptroller General McCarl in various cases in which he has been supported by the court, they are in effect that the Comptroller General will not pass and the court will not permit any form of chicanery. Evil may not be done that good may come of it.

AN act may be admittedly constitutional but it may not be expanded and prolonged until under its cover an unconstitutional thing is done. It is, however, possible to do the unlawful thing before the fact gets before either the Comptroller or the court. In that event the Comptroller would refuse to O. K. the accounts and the court would rule that the law had been violated.

But in this hypothetical case the money would have been spent and the thing done.

The control of floods is an increasingly imperative necessity in many regions. A headline in the morning

paper states that the recent floods cost the state of Nebraska alone the vast sum of \$49,000,000. There is no question of the constitutionality of action taken in the attempt to control floods. The announced purpose of the TVA to control floods in the Tennessee valley has been given popular approval. But in examining the grandiose project of the TVA it has become desirable to discover the precise point at which a flood control scheme merges into a power production scheme.

One of the announced purposes of the TVA is to produce and sell electric power in the affected area at a price the privately owned utilities cannot meet.

That this plan, if carried out successfully, would injure and perhaps destroy in part the investments in these privately owned utilities is admitted and ignored by the TVA.

FEDERAL Judge Grubb ruled that the government could not in obedience to the Constitution enter into competition in business with its citizens. The circuit court has recently reversed Judge Grubb's decision, holding that while the government cannot engage at will in private business, it can sell any surplus it may have even though this may result in competition. This case will eventually reach the Supreme Court of the United States for a final decision. It



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is impossible to say when that decision will be rendered or what it will be. Meanwhile two facts become apparent.

The greater the total of power produced by the TVA the greater is the sum of the "surplus" power—that not needed in the operation of flood control and navigation improvement—it will be able to place on the market.

The more complete the flood control project the more power will be produced. The flood control plan involves primarily the operation of the Muscle Shoals, Norris, Wheeler, and Pickwick dams on the main Tennessee river. In order to secure a steady, year-round flow of water for power production purposes and to control the floods it is planned to build twenty-eight subsidiary dams on the six tributaries. If these main and subsidiary dams are wholly for flood control purposes it may be assumed that they come within the frame of the Constitution. But the TVA states emphatically that they are also for the purpose of producing power.

THE question is: How much of the total expenditure may be fairly and honestly charged to flood control purposes? This is admittedly legal and constitutional.

And how much may be charged against power production, not needed by the government, manufactured for the admitted purpose of competing with privately owned, taxpaying utilities, and falsely labeled "surplus" in the hope of escaping the ban of the court?

The legality and constitutionality of this is as yet in doubt.

The only approach to an answer to

this question, so far as I can see, is to discover the amount of the present-day damage caused by entirely uncontrolled floods. Then it may be learned whether the huge plan for flood control is worth while. The best possible source for this information is the TVA itself. The members of the Authority are controversialists of the highest order. They have never failed to put the best possible face on every fact. They have on occasion excluded fact from their consideration. When they admit, as they admitted in their most recent report to Congress, that the total annual flood damage in the Tennessee river valley is \$926,000 it may be taken that this sum covers every possible penny of loss. Three different engineering inquiries were sent out by the TVA to get the facts, and the sum given above is the highest of the three totals.

Only one half of this total annual flood damage can be prevented by the TVA operations.

IT would be a money-saving device for Congress to agree to an annual payment of \$463,000 to the flood sufferers of the valley and avoid payment of the immense sums to be spent in the flood control operations. The computation of the total to be involved is enveloped in the densest possible fog, however, in common with most of the other facts of the TVA operations.

The TVA charges itself with only \$51,000,000 for Wilson dam and its subsidiaries at Muscle Shoals, although the total cost to the government was \$132,000,000. Comptroller General McCarl very clearly indicates that \$100,000,000 is more nearly the going value of this work.

A Whole Herd of White Elephants

"I*f the Tennessee valley project prove in the end to be an unholy mess, financially unsound from top to bottom, ruinous to private investors, and destitute of any faint resemblance to business principles the nation may receive with reluctance the excuse of the Tennessee Valley Authority that it meant well. Wilson dam was admittedly a white elephant on our hands. The TVA plan is to substitute for one white elephant a herd of the beasts."*



The estimated cost of Norris and Pickwick dams is \$56,000,000, and Wheeler dam may cost \$35,000,000 more. No one knows. A guess of one million dollars each for the twenty eight up-river and tributary dams might not be within the actual figure.

Erosion control is a thoroughly worthy work but some part of the cost should be charged against the works if the bookkeeping is to be honest. The same may be said of the reforestation plans now under way. A total government investment of \$200,000,000 may be made on the entire river system. Perhaps twice or three times that. The TVA has never to my knowledge issued a statement of the possible cost.

NOR has the Authority ever stated when it proposes to stop spending for flood control and begin spending for power production.

Yet on that point rests the entire glorified structure of the TVA, if the Supreme Court holds that the government can sell only surplus power. If the TVA may legally only sell what surplus power is produced in its flood control operations it will

have just about no power at all to sell. A flood control dam practically runs itself. The only electric power needed is enough to enable the dam-keeper to read his evening paper and lift a small gate when the water gets too low, in order to keep a trickle running down the main channel. In flood time the water runs over the top of the dam and no power on earth can prevent it. To put the fact succinctly:

The four main river dams and the twenty eight dams on the tributaries—possible future cost absolutely and magnificently unknown—do not need so much as a candle power of electricity in flood times to perform their flood control functions.

BUT Comptroller General McCarl says that a charge of 2 per cent a year for depreciation should be made. If the total investment amounts to \$200,000,000—see guesswork above—the depreciation charge per year would be \$4,000,000.

Even if the dams did not cost a penny a year for upkeep, politics, the TVA, dairy farms, and the like, it seems that spending four million dollars a year to save \$463,000 in flood

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damage is not exactly good business.

It is to avoid this deadly criticism that the TVA wishes to sell power. At least that is one reason why it wishes to sell power. The other, as has been made abundantly manifest, arises from its opposition to the privately owned utilities and to the hope often voiced by U. S. Senator Norris, the father of the whole mountain of feathers, that the government will eventually take over the utility business, lock, stock, and barrel.

The argument seems to me sound that if the Supreme Court holds that the TVA may not lawfully go into business in competition with privately owned, taxpaying utilities, the whole TVA scheme is sunk. For no democracy possessed of the intelligence of a chipmunk would enter into a plan to spend a minimum of four million dollars annually in order to save \$463,000.

THE second constitutional prop under the TVA's mountain of well-meaning theory is the improvement of navigation on the Tennessee valley.

No one will question that the expenditure of public moneys for the improvement of navigation comes within the constitutional frame.

The problem to be determined by the taxpaying public, to whom all the bills will eventually go, is whether the improvement of the Tennessee river channel will be worth the cost.

The TVA states that less than 400 miles of the river can be given a 9-foot channel for approximately ten months of the year. No estimate has as yet been made of the definite, maximum cost of this operation. That it will

run into millions is certain. Some use of the river has been made in the past, mostly by barges, together with a few small steamboats, and a 9-foot channel will certainly increase this use to the extent that water transportation proves economical. The amount of freight which will be offered remains wholly problematical. In past years cotton would have been a standard freight, but under present conditions it is impossible to say what it will amount to in the future.

THE once highly productive cotton lands have been largely exhausted. Thousands of acres have been thrown out of production entirely and the remainder is yielding a greatly reduced crop. For various reasons it is at the present at least doubtful whether it will pay to attempt cotton growing again on a large scale. American cotton is being squeezed out of the world market by the countries in which it can be produced more cheaply, and even if this condition were to be corrected a huge expenditure in fertilization of the worn-out land in the TVA territory would be necessary before the cotton states could come back into what was once their own. Apart from cotton the heavy freights which may be offered are as yet largely a matter of guesswork.

The Tennessee valley at one time had some of the finest timber on the continent, but it was ruthlessly logged off and a generation must pass before today's second growth will attain marketable quality. Millions of acres of tree land have been withdrawn as forest reserves and parks, in order to check the erosion which is stripping the soil from the hillsides. Farm

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crops would afford a certain amount of freight and there will be two-way hauls of manufactured articles and raw materials. No one can say—or will say—what that two-way haul may amount to.

RAILROAD rates northbound have been against the manufacturers in the area up to this time, for the very sound economic reason that they have not a sufficient bulk of freight to offer. If that freight is increased it may be assumed that the rates will be lowered. A competition will be set up between the all-the-year-round railroad haul and the ten months' haul on the river, with all its disadvantages of transfer of freight to and from the boats. It is certain that the water haul has not yet been shown to be sufficiently attractive to induce any of the states interested to spend money for channel improvement. By general consent that has been left to the TVA. It seems to me that when the spending of millions of dollars of the money of the general taxpayer is under consideration the least the TVA can do is to apply the ordinary principles of common sense and foresight to the matter. As yet it seems to me that the Authority has relied wholly on hope and holy aspirations.

If the Tennessee valley project prove in the end to be an unholy mess, financially unsound from top to bot-

tom, ruinous to private investors, and destitute of any faint resemblance to business principles the nation may receive with reluctance the excuse of the Tennessee Valley Authority that it meant well. Wilson dam was admittedly a white elephant on our hands. The TVA plan is to substitute for one white elephant a herd of the beasts.

AT one point in this article I pointed out that a flood control dam needs no electricity for its operations. If the flood water does not flow over the top then the flood has been controlled. If it does flow over the top there is nothing that any one can do about it. It is, however, true that if the plan for navigation improvement becomes an actuality a certain amount of electricity will be needed to operate the water gates, through which the channel may be kept—Jupiter Pluvius consenting—filled to a depth permitting the use of barges and steamboats. But it must be pointed out that a great amount of electric current would not be needed for this. The present entirely effective installation of ten giant generators at Wilson dam should furnish all that is needed.

It is true that an exchange arrangement with private utilities might be compelled, inasmuch as current cannot be economically used at a distance of more than 300 miles from the power source. But the sum of the current



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producible at Wilson dam would be quite equal to the demands made by the infrequent lifting of the upriver and tributary water gates. It is to be taken for granted that the navigable channel will not be lighted up like Broadway for the passage of occasional scows, and that whatever electricity is needed for whatever lighting is done can be supplied from the same generators at Wilson dam, or by the same exchange arrangement with private utilities.

THE two constitutional props of the TVA project seem distinctly rickety.

Unless the U. S. Supreme Court holds that the government may do more than merely sell surplus power, then the TVA may only sell that part of the power it produces which is in fact surplus. It will be extremely difficult for the Authority to show that it will be necessary for it to produce more power for flood control and navigation improvement operations than it is now producing at Wilson dam. Unless it can make that showing then the TVA's gigantic expenditures on its power program will go for nothing. The social betterment plan is entirely apart from the power program and will be considered later.

I have not considered the claim that the TVA expenditures are justified because they have strengthened the national defense because that claim has not been reduced to definite form by the TVA. Once upon a time it was stated that nitrates for use in war could be made at the Wilson dam plant. This is true. It is also true that the plant is out of date and that

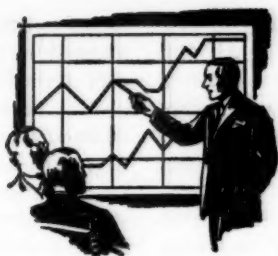
nitrates can be more rapidly and cheaply made at the modern manufacturing establishments where they are in effect a by-product. Nothing is said about nitrates at Wilson dam today. If under the TVA plan the farm lands in the area were tripled in productiveness the national strength would be added to, of course, but no one has yet thought of suggesting that corn land farmers in Illinois be subsidized by the government because their rich acres are an item in the national defense program.

ON the TVA theory every railroad and bus line—and, come to think of it, every private utility—is entitled to dip into the national money box because it is a part of the defense plan. Like so many other things the TVA has said this claim does not bear the test.

Yet there are good things in the TVA program, taken separately. Certainly the washing away of the topsoil should be prevented, whether in the Tennessee valley or elsewhere. Reforesting is assuredly desirable. The education of the farmer in his own business is beneficial to all. A dozen items might be cited and every one is desirable. These things are being done and well done in the Tennessee valley. The question may properly be posed, however, whether these activities are not properly affairs of the seven states involved and not chargeable against the over-burdened general taxpayer. They will be considered later.

In this article I have tried only to examine the two rickety—very rickety—constitutional props of the TVA.

A second article by Mr. Corey on the TVA development will appear in an early issue of this magazine.



The Utilities' Financial Future

A Plea for Sound Economic Analysis of the Allowed "Rate" of Return and of Debt Retirement Proposals

By ALLAN G. MITCHELL

Two movements which are now gaining momentum among state and Federal commissions bid fair to play a major part in the future financial stability of the electric utility industry. First is the definite trend toward lowering the allowed "rate" of return which the utilities are permitted to earn, a movement already resulting in specific reductions by several important commissions. Second is the movement to require the utilities to completely pay off their funded debt within a "reasonably" limited time, through sinking-fund or equivalent provisions. The latter trend—though not yet pronounced—is credited with support of the White House itself, and will undoubtedly come in for more specific action with the passage of time.

Considered separately, there is much to be said in favor of each of these trends. A lower rate of return means lower rates to consumers and this in turn should bring about increased con-

sumption, a stronger sales position in meeting competitive power and fuel services, and general over-all expansion of the utility's service. That is, a lower return would tend in this direction though it is well nigh impossible to measure quantitatively how powerful a force it would prove to be.

Similarly, a regular program for progressive retirement of funded debt would lower the burden of fixed charges, thereby putting the utilities in a more flexible position to meet competition, to make changes demanded by supersession and obsolescence, and to cope with the exigencies of depression periods. The greater security thus provided for the funded debt might conceivably result in lower interest rates, thus giving an offsetting saving to aid in carrying out the debt retirement program.

SUCH a horseback appraisal points to several factors that are distinctly favorable both to lowering of the

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allowed "rate" of return and to progressive reduction of the debt. But it falls short of the mark because it fails to reconcile the fundamental conflict between these two movements. For there is a fundamental conflict and unless the two factors are properly related to each other, it is inevitable that serious financial repercussions will occur at some future date.

For example, arbitrary reductions in the allowed rate of return may constitute little better than a "squeeze" for the stockholders in some utilities, especially where these companies have had to obtain their bond money in an unfavorable money market with high interest rates, large redemption premiums, or noncallable features. Similarly a bond sinking fund or its equivalent, imposed arbitrarily upon a company not having such provisions, would likewise prove to be a "squeeze" in a substantial number of cases. It should be entirely clear then that pyramiding of these factors—without due regard for the practical conditions which must be met—would inevitably lead to a period of financial uncertainty and, in fact, become a boomerang in its effect upon the utilities' credit.

IN spite of the serious long-range aspects of the matter, action to reduce the allowed "rate" of return goes on apace. Formerly a return of 7 to 8 per cent was looked upon as fair and reasonable by the courts and commissions in practically all of the states. Now, however, opinion has become more divided. Some authorities hold that a return of only 5 or 6 per cent is ample; others that the 7 or 8 per cent level is proper for the long-term view. The strangest paradox is, per-

haps, to find an 8 per cent return allowed in one state while a 5 per cent return is being promulgated as proper in an adjacent state of like characteristics. It is hard to believe that both can be right. And whichever is wrong—perhaps they both are—is unfair to consumers and stockholders alike, since an uneconomic level for the "rate" of return leads to expectations which will sooner or later prove false.

There is little to indicate that the "rate" of return has been the subject of scientific investigation, at least in recent years, to determine what does constitute a fair, economic level. Political pressure, the depression complex against anything that makes money, and the "feeling" that utilities are now "seasoned" and therefore able to get by on a lower rate of return, have been the principal forces behind the reductions already made in the allowed return. The lack of uniformity among the states is mute testimony to the ascendancy of political pressure in approaching this very important issue.

PERHAPS it is too trite to say that the fair return allowed must be high enough to hold the capital already invested in the industry and to attract new capital as needed for expansion. However this simple fundamental can easily be overlooked in the political arena, amid the clamor for "results"—which usually means lower rates no matter what. Yet the proper answer is essentially an economic matter—not one of political expediency—for it is in the money market that new funds must be obtained.

The elements which go to make up

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the rate of return required are all subject to scientific study and economic judgment. Hence there is every reason why it should be determined in this way and not left to the whim of whatever political wind is blowing at the moment.

For the purpose of illustration, consider this: the so-called ideal financial set-up for a public utility is usually taken as follows:

Funded debt	50%
Preferred stock	25
Common equity	25
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Total capital	100%

From historical experience, from trend studies, and from consideration of money market conditions, the cost of bond money to the utilities could be determined with a reasonable certainty for a wide range of practical operating conditions. Similarly with the cost of preferred stock money.

FOR the common stock the factors are not as definite since this is essentially the "cushion" class of securities and therefore subject to wider fluctuations in the earnings which it can reasonably expect. However for the purpose of setting an allowed "rate" of return (which by the way is simply allowed and not in any sense guaranteed) it is perfectly feasible to establish limits for the reasonable return on the common stock—a lower limit below which the return on com-

mon should not be expected to fall, and an upper limit representing the "ceiling" return needed in order to make the common stock an attractive long-time investment in comparison with other types of business equities.

Application of the costs of money thus determined to some "ideal" set-up for bonds, preferred and common, would furnish a sound, reliable guide as to what does constitute a fair, economic "rate" of return for any particular set of circumstances. And such an approach would take the matter out of the realm of political prejudice and put it under the glass for economic scrutiny where it belongs.

Lest there be any doubt as to how this economic rate of return is to be applied, it should be clearly understood that the method suggested here does not contemplate any change in the present practice of establishing a "rate base" from consideration of the original investment and other factors. The "rate" of return, developed by this or any other method, should be applied to the rate base, just as it now is, in order to determine the aggregate amount of return which the utility should be permitted to earn. The consideration of the capital issues comes into the picture only for the purpose of determining what constitutes a fair percentage "rate" of return, and not in any sense for the determination of the aggregate amount of the return.



<i>Capital Investment</i>		<i>Cost of Money</i>	<i>"Depression" Return</i>	<i>"Prosperity" Return</i>
50%	Bonds	@ 5%	2.500%	2.500%
25%	Preferred stock	@ 6½%	1.625	1.625
25%	Common equity	@ 5 to 15%	1.250	3.750
<hr/>				
100%	Total		5.375	7.875
Allowed rate of return, say from			5½%	to 7½%

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THIS general method has another advantage which bears further consideration, namely, that it provides a sound basis for varying the allowed rate of return (within limits) in accordance with the business cycle. During depression periods, when general business is earning very little, the common stock return might be set at the lower limit described above, say at 5 per cent or so. And during prosperity periods when general business is paying high returns of as much as 20, 30, or 40 per cent, the common stock return should be raised to its "ceiling" level, say at 15 per cent, in order that the utilities' common can compete favorably with the investment demands of other industries. Thus for an assumed set-up, the "depression" and the "prosperity" rates of return to be allowed would line up somewhat as shown in the table on page 193.

Practical application of such a plan would involve too many ramifications to be covered adequately in this brief discussion. Chief among these is the extent to which the allowed "rate" of return could practically be varied from year to year, and the problem of adapting such variations to a rate structure which inherently should be relatively stable. Also of importance would be the necessity for setting up a relationship between the common stock return considered proper and some business cycle index, since this is the base from which the variations in the allowed rate of return are to be made.

IN view of the practicalities which remain to be solved, this suggestion is not put forth as the simple,

ready-made panacea for all ills with respect to the allowed rate of return. It is, however, pointed out as a possible path toward reconciliation of the two schools of diametrically opposed thought upon the subject, these schools being:

First, the one group which holds that the allowed rate of return should be fixed—not subject to variation due to depressions or other temporary influences. This for the reason that the utilities, with their return limited, are not able to build up large surpluses during boom periods as are other industries; hence they are not financially equipped to weather depressions unless permitted to continue earning their fair return throughout. Add to this the fact that fixed charges take a much larger portion of the utility revenue dollar than is the case in other industries; hence greater overall stability is required in order to meet these obligations.

Second, the other group which holds that electric rates—hence the allowed rate of return—should vary along with other commodity prices in accordance with the business cycle. This view has become vocalized on numerous occasions during this depression and though it lightly skips over the economic facts involved in the present practice, it seems, to have considerable political support and to be responsible in some measure for rate reduction agitation.

Psychologically then, and from the standpoint of sound merchandising, the utilities could profit in their consumer relations if they were able to reconcile the human demands of the second group with the economic requirements upon which the first group rests its case.

THE proposed method for relating the rate of return to the business cycle seems to offer an opportunity for



Investment Responsibility of Utilities

"THE utility industry is no shoe-string, fly-by-night affair; but has an investment responsibility ranking with that of its consumer responsibility. It is not sufficient, therefore, to let political pressure dictate, particularly where a wrong decision may lead to financial crippling at some future date. Nor is it sufficient, on the other hand, to rely entirely upon legal rights or the legalistic method to maintain the STATUS QUO."

just such a reconciliation between these conflicting views. For it provides a range—from high to low—for the rate of return (1) within which the utilities can operate with the same over-all long-time stability as under the present fixed return and (2) through which they can capitalize favorably upon public buying psychology by varying their rates for service somewhat in accord with general price trends.

Whether the allowed rate of return should be related to the business cycle, as in this suggestion, or whether it should remain static is somewhat beside the main point. What is important is that the percentage rate of return should be brought into the economic laboratory and made the subject of adequate, fact-finding study to determine what do constitute fair rates of return for the range of practical field conditions which must be met. When that is done, the feasibility of

any particular departure, such as that outlined above, will become evident on the basis of the facts.

CLOSELY related to the rate of return is the matter of sinking-fund provisions for the retirement of funded debt. Aside from theoretical considerations, this becomes a matter of practical importance for this reason:

If the trend toward debt retirement gains headway, an increasing portion of the utilities' earnings will be diverted from their present normal dividend channels to the debt retirement program. This may seriously impair the financial liquidity of some companies, keeping them constantly short of cash, or confronting them with the necessity of regularly borrowing additional capital which in itself defeats the purpose of the debt retirement program. Thus to meet effectively all requirements, the "rate" of return

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must be high enough to enable the utility to meet the cash requirements of whatever debt retirement plan is adopted as sound and desirable.

True, the use of earnings for debt retirement increases the common stock equity and is tantamount to reinvestment of the common stock earnings in the property. For a brief period of five years or so, such a program might work no hardship on the stockholders. However, a wholesale retirement of the debt—such as some proponents of the idea seem to envisage—would mean continuation of this reinvestment program for as long as twenty-five, thirty, or even forty years in some cases. The wisdom or propriety of depriving the current generation of stockholders of cash dividends for such a long stretch is seriously open to question, even though their equities “on paper” are building up in the meantime.

THEN too, the whole question is intimately related to the attitudes and purposes of political administrations. What assurances have the stockholders that their equities will not be wiped out if they do go along with some such debt retirement program? If the signs of the times mean anything, there is a political disposition to consider the bond obligations as sacred, the preferred stock obligations somewhat less so, and the common stock practically not at all. Consequently as the bond obligations are progressively retired, there is an ever-present liability of political action to “take over” the utilities or at least to cut down on their return.

And even if one administration should make its position clear in this

respect, so clear as to leave no shadow of doubt as to the integrity of its intentions, it has no power to bind future administrations. The stockholders, therefore, cannot reasonably be expected to favor a plan for complete retirement of debt which would deprive them of cash income over a period of years and which might also contribute to the ultimate “separation” of their property from them.

To get some picture of what is involved in a wholesale retirement of the utilities’ funded debt, let us turn to these facts:

From a survey of twenty-eight representative operating companies it is found that the funded debt (excluding debenture bonds) amounts to 50 per cent of the fixed capital investment, or roughly 50 per cent of their rate bases. The cost of bond money for the outstanding bonds averages just 5 per cent per annum, including the effect of debt discount and expense.

ASSUMING that twenty-five years is the time allotted for complete retirement of these obligations, the sinking-fund requirement would be 2 per cent per annum of the bonds now outstanding plus an amount each year equivalent to the interest on the bonds previously retired through the sinking fund. In other words, the total interest and sinking-fund charges would comprise the present bond rate of 5 per cent (see above) plus the 2 per cent fixed sinking-fund payment or a total of 7 per cent of the bonds now outstanding. This amount would have to be paid each year for the next twenty-five years to effect a complete retirement of the debt in that time.

THE UTILITIES FINANCIAL FUTURE

With an allowed return of only 5 per cent, there would be barely enough cash with which to meet the interest, sinking fund, and preferred dividend requirements, let alone any cash dividends on the common. With a return of 6 per cent, the cash available for common dividends would amount to only $3\frac{1}{2}$ per cent. The correctness of these statements is indicated by the table below which shows, for the so-called "ideal" set-up, the disposition of the cash earnings under these two rates of return:

These figures approximate the "average" effect of such a program on all the companies included in the bond money calculation. The effect upon the cash position of some of the companies would of course be much more drastic and unfavorable; and on others of less serious import.

VARIATION in the assumed conditions—as to the time allotted for debt retirement, or as to the proportion of debt which it is considered desirable to retire—would alter the extent to which the sinking-fund requirements would affect the picture. It would not, however, alter the fundamental conflicts involved.

Theoretical considerations for or against the complete retirement of funded debt have purposely been side-tracked in this discussion for two reasons:

First, because they involve highly controversial points, the merits of which may never be agreed upon by the proponents of different schools of thought;

Second, because the purpose here is to point out the desirability of following sound economics in dealing with a fact (not a theory), namely, the sentiment which seems to be growing in favor of debt retirement for the utilities.

To attempt to say just how far debt retirement can or should go, or just how sinking-fund provisions should be integrated with the over-all picture, would be a hazardous undertaking until a thorough, quantitative study of the matter has been made. However, from consideration of the factors involved, it becomes increasingly clear that some definite, tangible recognition should be given to sinking-fund provisions, either present or proposed, in setting the "rate" of return which is to be allowed as fair and proper.

IN conclusion then, it seems evident that an economic approach is the only justifiable course to follow in both these matters, namely: in making decisions on the allowed rate of return, and in putting pressure in the direction of drastic reduction of the funded debt. The utility industry is no shoe-string, fly-by-night affair; but has an investment responsibility ranking with that of its consumer respon-



Capital Investment		5% Return		6% Return	
50%	Bonds	@ 7%*	3.500%	@ 7%*	3.500%
25	Preferred stock	@ $6\frac{1}{2}$	1.625	@ $6\frac{1}{2}$	1.625
25	Common equity	@ 0	0.000	@ $3\frac{1}{2}$	0.875
100% Total			5.125%		6.000%

* Includes 5 per cent cost of bond money plus 2 per cent fixed sinking-fund payment.

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sibility. It is not sufficient, therefore, to let political pressure dictate, particularly where a wrong decision may lead to financial crippling at some future date. Nor is it sufficient, on the other hand, to rely entirely upon legal rights or the legalistic method to maintain the *status quo*. It would be far better all around, for both the commissions and the utilities, to rely on the economic principles and facts involved as their main guide in arriving at the correct answers to these matters.

This approach would lead to sound bases on which the commissions and utilities could more readily come to agreement on this fundamental point in all major rate regulation problems—the proper rate of return to be allowed. Presumably it would lead to greater uniformity among states in this respect, which in itself would have a stabilizing influence in both investment and rate matters. Certain it is that until the matter has been brought down to economic earth, the commissions can have no real assur-

ance that they are acting wisely in demanding reductions in the allowed return. Nor can the utilities be too sure of their position in holding that the rates of return which have been generally accepted in the past should continue *ad infinitum*.

THUS the regulatory commissions, both state and Federal, and the utilities have the opportunity for constructive coöperation in these matters, the proper solution of which will constitute a major assurance to the welfare of consumers and investors alike, and also an advance in the field of regulation. Forehandedness in this direction should do much to dispel the spectre of political dictation and to assure a sound, progressive, and economic policy in regulation. Failure to take this forward step will—judging from the trend of events—inevitably lead to the same sort of arbitrary, strait-jacket restriction which has been one of the contributing causes of the present plight of the railroads in this country.

A Case of Mistaken Identity

ONE of the contributors to the June 20, 1935, issue of PUBLIC UTILITIES FORTNIGHTLY, Paul Severance, inadvertently stated (page 750) that the Georgia legislature had recently adopted a resolution directing the state utility commission to "make Federal power available in thirty-odd towns now served by the Georgia Power Company."

A subscriber has kindly brought to our attention the fact that Mr. Severance had evidently confused the Georgia Power Company with the Georgia Power and Light Company. The two companies are entirely independent of each other. The TVA does not serve in the Georgia Power Company territory, and there is no discernible indication that it ever will. Incidentally, the resolution referred to by Mr. Severance appears to have been passed only by the lower house of the Georgia legislature, which adjourned before the upper house acted upon it. Hence, it was not adopted by the 1935 session of the legislature.

Remarkable Remarks

"There never was in the world two opinions alike."

—MONTAIGNE

T. STEWART LYON
*Chairman, Ontario Hydro-Electric
Commission.*

"We still have another shot in the locker before we have to raise the price to the consumer."

JOHN O'REN
Baltimore Sun Columnist.

"One is lucky, I suppose, to be connected in no way with a public utility, especially a street railway."

GEORGE TERBORGH
*Former Adviser to Federal
Reserve Board.*

"Not only would the NRA have retarded recovery if it had worked out as planned, but it retarded recovery as it actually did not work."

JOSEPH P. KENNEDY
Chairman of the SEC.

"Business is still not only better than confidence; it is better than we deserve to have it. We have not matched results with our courage."

LOUIS H. EGAN
*President, Union Electric Light
and Power Company.*

"The trouble with the TVA yardstick is that it is made of rubber. It is not 3 feet long; it is 2 feet long sometimes and 4 feet long other times."

PATRICK MCCARRAN
*United States Senator from
Nevada.*

"I am in favor, and I have been in favor, and I shall continue to be in favor of municipal control as against private control of the power of the country."

SAM RAYBURN
*United States Representative
from Texas.*

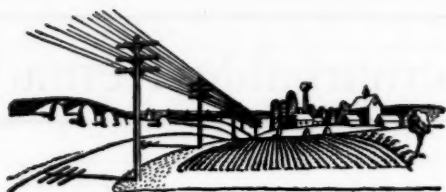
"There is no absolute necessity for a holding company. . . . The abuses of the holding companies are indeed a major influence that brought on the depression."

EUGENE TALMADGE
Governor of Georgia.

"The depression was brought on by exorbitant war-time utility rates. They have blocked and still block distribution, and lack of distribution for what we make at home is the root of our present farm and industrial troubles."

FORNEY JOHNSTON
Attorney, Birmingham, Ala.

"Man for man, and motive for motive, I should cast my vote for American business in a net value contest with Congress, the legislatures, the liberals, or the political hog callers now broadcasting to their followers, to line up for their unearned share of the liquidation of American industry."



Rural Electric Lines To Curb Migration from Farms

To make the farm attractive to the new generation is the problem. Rural electrification is proposed as a solution. The author views the field and suggests a program involving Federal coöperation.

By O. M. RAU
FORMERLY CONSULTANT PWA

THE electrified farm is emphasized as one of the outstanding necessities to save our supremacy as an agricultural country. To keep the succeeding generation of our farmers "on the farm" is the problem, in the solution of which the electrified farm is of first importance as a necessary accomplishment.

The conveniences and environment of a city home are familiar to every farmer's child, the most humble of which are in contact with the better life from the day they go to school up to the time they must choose a vocation for their future activities.

The contrast between the farm home and the impression received from contact with modern living conditions become permanent and no matter how promising the farm may provide for their future the living conditions are distasteful and discouraging.

The lack of sanitation—no running water, no bath tub, the outhouse—oil

lamps, the cook stove, no refrigerator, —nothing to give the home life something to look forward to, leaves farming the first vocation to be discarded in selecting the future activities of the growing generation of a farmer's family.

It is therefore not surprising that the agitation for the electrified farm has developed into a national issue. The availability of electric service will directly bring about the elimination of a fundamental reason, for "leaving the farm." A reliable source of water supply will in the most humble home result in sanitary improvements. Electric light will mean cheerful evenings at home. Electric refrigeration and ranges will mean wholesome and refreshing meals, not to mention the numerous electric appliances that help make a more livable existence.

A modernized farm home and an automobile leaves little of the advan-

RURAL ELECTRIC LINES TO CURB MIGRATION FROM FARMS

tages the city life may offer and will at least cause a hesitation in the young farmer's mind before deciding to "leave the farm."

The importance, as a national issue, to facilitate a rapid development of the electric farm is worthy of the most active participation by all interests in the Federal government's activities to accomplish this outstanding social betterment in the most important industry of the nation.

THE number of farms to which electric service is now available is estimated at 1,000,000, of which 725,000 are actually connected and using central station electric service in a more or less effective manner.

There are (1930 census) 6,288,648 farms in the United States, indicating about 12 per cent have the facilities to make the home life on the farm equal as livable as that of the city dweller.

This 12 per cent of the farms however become a much smaller percentage, applied to the farms that are vitally necessary to uphold our agricultural supremacy.

The farms having electric service available may be largely classed as the farms in the immediate areas surrounding towns and cities and comprise the smaller farming activities of the country. The electrification of these farms have little if any influence on the farms so necessary to maintain the position of agriculture as the largest industry in the United States.

A graphic impression of the progress of farm electrification as accomplished to date may be obtained by outlining an area not exceeding five miles beyond the town or city limits in which electric service is supplied by

a private electric system. Locations in which municipal electric systems operate must be largely omitted as the corporate rights prevent extension of the electric service beyond the corporate limits.

This graphic picture indicates the enormous area in which electric service must be extended to serve the really important farms of the nation.

IT is often expressed that the farms now served represent the "cream." This misnomer is self-apparent when the development of the electric industry is considered, there never is any "cream" until the service has been established for a period, sufficiently long to develop its use, which takes years to accomplish before any "cream" stage is reached. It is therefore safe to say that to electrify the farms of the nation is a pioneering project and must be undertaken with the hazards such projects encounter.

Census figures for 1930 give the following classification of the farms in the United States.

Classification of Farms

Class	Acreage	No. of Farms	
1	3 or less	43,007	
2	3 to 9	315,497	
3	10 to 19	559,617	
	Sub total	918,121	
4	20 to 49	1,440,388	
5	50 to 99	1,374,965	
6	100 to 174	1,342,927	
7	174 to 259	520,593	
8	260 to 499	451,338	
	Sub total	5,130,211	
9	500 to 999	159,696	
10	1,000 to 4,999	71,321	
11	5,000 and over	9,299	
	Sub total	240,316	
	Total	6,288,648	

Rural Lines to Nonfarming Communities



"THE extension of rural lines to reach the farms will necessarily become available to serve many customers which are not classed as farmers. These rural lines with few exceptions will pass through small rural communities in which no electric service is available and while none of the inhabitants may be farmers the number of prospective customers will materially affect the average number of customers per mile of line extension."

THE Department of Commerce release of Dec. 16, 1931, indicates that of 2,139,134 farms reporting (34 per cent of all farms) 846,310 have dwelling houses lighted by electricity (39½ per cent of these reporting). The interim report of the Federal Power Commission (page 14) estimates the number of farms receiving central station electric service as 725,000 indicating that the 2,139,134 farms reporting includes all the farms served from central stations in addition to 121,310 farms which obtain service from sources other than central stations. Such sources may be Delco or other individual lighting plants. Industrial establishments located in farming areas which may extend distribution lines into farming districts adjacent to the industry or private and municipal plants not classed as central stations would come under this head. Allowing that of the 4,149,514 farms not reporting, there must be some that have electric service, an estimate of 850,000 farms can be considered as reasonable to cover all the farms in the U. S. using electric service from some source.

The areas in which central station service is used by the farms (actual customer) include farms to which service is available but have not become customers. The experience in areas now served from central stations indicates approximately 75 per cent of these farms (to which service is available and which could be served from the distribution lines constructed) become actual customers. Assuming as reasonable that the farms now served by central stations represent 75 per cent of the farms which can be reached by the existing distributing system, the actual number of farms having their service available would be approximately 968,000 farms. Including the farms obtaining service from other sources and not reporting it can be safely estimated that not less than a total of 1,100,000 farms (17 per cent of all farms) have electric service or it is available for them to use.

THE locations of the various classes of farms are not in definite areas. It is, however, general that the smaller farms are located in the fringe of

RURAL ELECTRIC LINES TO CURB MIGRATION FROM FARMS

suburban districts of towns and cities and as the distance from these more densely populated places increases the farms of larger acreage are located. It can, therefore, be stated with reasonable accuracy that the classes of farms with the larger acreage are located beyond a 5-mile area of the corporate limits of the towns and cities in which central station service is available.

Farms in classes 1, 2, and 3 (918,121 farms) therefore can be allocated as largely within this area and represent practically the farms which have obtained or can obtain electric service. Considering classes 9, 10, and 11 (240,316 farms) largely as cattle ranches or farms of such importance as may warrant the installation of isolated electric plants, they can be omitted as of minor importance in a national farm electrification plan.

THE remaining classes 4, 5, 6, 7, and 8 (5,130,211 farms) form the important group which must be given consideration in a program to electrify the farms in the United States. The farms now having electric service or to which it is available (1,100,000 farms) number 181,879 in excess of the farms in classes 1, 2, and 3 and are more or less likely to be in class 4 leaving a net total of 4,948,332 farms to which electric service should become available.

Farms in classes 7 and 8 (971,931 farms) will average less than 2 farm customers per mile of distribution lines (assuming 75 per cent would become customers) which density is lower than present methods for distributing electric service can be considered economically feasible. Omitting these

two classes, a farm electrification project, so that electric service will be available to all farms in the United States which can be economically served, will require the construction of service facilities to 3,976,401 farms to which electric service is not now available.

These farms can reasonably be considered in the following classes:

Class 4	1,258,509	farms
" 5	1,374,965	"
" 6	1,342,927	"
Total	3,976,401	"

Deducting 25 per cent for farms abandoned or not likely to take service if available the number of farm customers for a nation-wide farm electrification program can be estimated at 2,982,301 (say 3,000,000) farm customers.

These farms consist of approximately an equal number of classes 4, 5, and 6 farms, class 4 farms will average from 6 to 7 farms per mile of distribution line, class 5, from 4 to 5 farms, and class 6 from 2 to 3 farms. Only 75 per cent of the farms being estimated as possible customers, the actual average farm customer will approximate 3 to 4 per mile of distribution lines.

CONSERVATIVE planning indicates that not less than 1,500,000 farms are reasonably sure of becoming customers of a farm electrification system with not less than 3 customers per mile and an additional 1,500,000 farms at an average of not less than 2 customers per mile of distribution facilities.

The various size farms are not segregated in definite areas. Each area may contain a various number of each size farms, therefore a safe average

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for the farms without electric service available in the United States which can be economically served with electric energy at a ratio of 75 per cent of the farms becoming customers is in round numbers 3,000,000 farms averaging $2\frac{1}{2}$ farm customers per mile of distribution lines.

It is not intended to convey the impression that in arriving at this conclusion, the rural electrification of the farms will result in the discouraging prospect of obtaining $2\frac{1}{2}$ customers per mile line construction. The extension of rural lines to reach the farms will necessarily become available to serve many customers which are not classed as farmers. These rural lines with few exceptions will pass through small rural communities in which no electric service is available and while none of the inhabitants may be farmers the number of prospective customers will materially affect the average number of customers per mile of line extension. To serve the customer in these rural communities or hamlets may be of equal importance to that of serving the farmers but they cannot be included as solving the problem (that only 12 per cent of the farms have electric service). It is, however, of material importance to include these prospective customers in arriv-

ing at the economics of a farm electrification project.

THE construction costs to provide distribution facilities are estimated at from \$500 to \$1,500 per mile for overhead construction. These estimates based on various overhead standards and dependent on the location can be fully supported by detailed construction cost estimates.

Considering, however, that the remaining farms to be electrified have an average density of only $2\frac{1}{2}$ customers per mile of line, the maintenance of such lines (overhead construction) becomes a serious problem. The distance to travel for inspection, the trouble from trees, pole damage by automobile, storms, and weather elements in general, not omitting the uncertain life of overhead construction are hazards which must be overcome before low density farm area can be successfully electrified.

UNDERGROUND construction for rural lines has received attention with promising results. This class of construction may be the solution for a successful national farm electrification plan with average densities approximating 2 farm customers per mile of distribution facilities. To serve these customers voltages of from 6,600



Q "THE availability of electric service will directly bring about the elimination of a fundamental reason, for 'leaving the farm.' A reliable source of water supply will in the most humble home result in sanitary improvements. Electric light will mean cheerful evenings at home. Electric refrigeration and ranges will mean wholesome and refreshing meals, not to mention the numerous electric appliances that help make a more livable existence."

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volts upwards must be considered, which for safe and reliable operation require reasonably high standards of construction, placing the conductor underground, eliminate any tendencies to hazard low cost construction to make the service economically possible, which was so disastrous to the early attempts at telephone service to the farmers.

In considering underground construction for these low density areas it is proposed to use single conductor metal sheathed paper insulated cable covered with asphalt protection covering using the metal sheath as a grounded conductor, such cable in the large quantities required is estimated to cost from 6 to 8 cents per foot f. o. b. nearest point of delivery on reels in length necessary to reach each customer without joints. The cost of laying this cable in plowed ditches is estimated at \$5 per mile.

To assure long life and low maintenance cost, reinforced concrete spun poles, set inside of the property line of the farm, are proposed for the service connection at each customer, to which the transformer and necessary service hardware are attached and fitted with a pole cap from which the primary connection to the transformer is made, the incoming and outgoing cables being threaded through the pole and connections made before the pole is set.

This pole can be fabricated at temporary plants located central to an area to be electrified at an average cost estimated not to exceed \$9 per pole.

The customer's transformer depends on the service contracted for. It is estimated that a 3-kilovolt ampere

average capacity will be ample to serve these customers.

With the exception of services and meters this completes the rural distribution system. An itemized construction cost estimate is submitted as follows:

Rural Underground Construction Cost Estimate for Sparsely Settled Areas Averaging 2 Customers Per Mile of Distribution Lines

	Cost per Mile
Cable Installation	
Cable f.o.b. point of delivery @ 8¢ ...	\$422.40
Cartage to location and ret. of reels ¹	1.00
Plowing trench—2 men and plowing equipment ²	1.00
Digging pole holes—2 holes per mile ³	1.20
Laying cable, refilling ditch and setting poles ⁴	3.00
Sub total	\$428.60

Remarks—

- ¹ 10 miles cable per day.
- ² 10 miles trench per day.
- ³ 4 men—10 miles per day.
- ⁴ 10 men—10 miles per day.

Fabricating and delivery of poles

Equipment fabricating plant	
Shed for housing equipment	\$150.00
Concrete mixer	100.00
Spinning lathe	75.00
Oil engine and misc. drive equipt. ..	150.00
20 pole moulds	200.00
Misc. tools and equipment	125.00

Total fabricating plant

Plant capacity 20 poles per day

Fixed charges fabricating plant per day	\$3.00
Labor—4 men @ \$3.00 per day	12.00
Concrete—5 cu. yds. per day @ \$8.50	42.50
1,500 lbs. reinforcement rods @ 2.5¢	37.50
Misc. supplies	5.00

Total production expenses a day \$100.00

Output 20 poles per day @ \$5.00
—\$10.00 per mile.

Pole assembly at customers location

Pole top fitting @ \$2.00	\$4.00
Transformer supports @ 50¢	1.00
Service rack and insulation @ 50¢	1.00
Primary leads to transformer @ 50¢	1.00
Connecting cables and leads at pole	2.00

Pole assembly ready for trans. service \$9.00



Capital for Rural Electrification

"To accomplish the social importance of the electrified farm, the farm must be provided with the facilities so that electric service will improve the living conditions and make the home life on the farm attractive to the young people. This requires capital, at least under present conditions, not available to the average farmer in these areas."

Transformer and services

Average 3 kw. capacity @ \$60.00 ..	\$120.00
Meters @ \$8.00	16.00
Average 1 wood pole for service @ \$3.00	6.00
Average 600 ft. No. 6 wire @ 15¢ lb.	15.00
Installing, cartage, and misc. @ \$2.50 ..	5.00
Average cost of services per mile ..	\$162.00
Total distribution cost per mile ...	609.60
Superintendence and engineering ..	10.40
Total construction cost per mile ...	\$620.00

Applying the conditions under which this work could be accomplished by funds from the PWA the cost to serve the average farm customer would be as follows:

Construction cost of project per mile	\$620.00
45% grant	279.00
Fixed capital cost per mile	\$341.00

	Per year
Amortization of loan (40-year period) per mile	\$8.06
Interest (average over 40 yrs. @ 3%) per mile	5.11
Fixed charge per mile	\$13.17
Fixed charges per customer (2 per mile)	6.59

MAINTENANCE expenses with this type of construction are estimated at a nominal cost per customer.

Operating expenses consist principally of commercial expenses. The policy under which a rural district is organized will largely control these costs. If a formal policy is adopted these costs may be excessive. If organized under coöperative principles without compensation for executives and expenses are limited to actual full time employment the costs will be conservative.

	Per customer
Allowing for commercial and general expenses	\$2.50
and for operating and maintenance ..	1.00
The expenses exclusive of energy will be	\$3.50
Fixed charges	6.59
Total cost per customer	\$10.09

Allowing 2 cents per kilowatt hour as the cost of energy at the customer's meter, the cost to serve a customer at the following kilowatt hour use per year will be:

600 kw. hr. per year, \$22.09—average per kw. hr. 3.66¢.
1,200 kw. hr. per year, \$34.09—average per kw. hr. 2.84¢.
2,400 kw. hr. per year, \$58.09—average per kw. hr. 2.42¢.

RURAL ELECTRIC LINES TO CURB MIGRATION FROM FARMS

A rate schedule to assure a return on the fixed capital cost so that the project will become self-liquidating must provide revenues sufficient to allow for contingencies and emergencies. As additions or changes to the original construction will not have the advantage of a Federal grant the rate base must be established on actual construction costs after the first installation. To provide sufficient revenue so that the earnings will assure the self-liquidation of the project, the rate schedule should assume revenue of not less than 5 per cent in excess of the cost to serve. Such a rate schedule could be established as follows:

Rural Farm Service Rate

First 10 kw. hr. or less per month, \$1.00
 Next 40 kw. hr. per month, 3¢ per kw. hr.
 Excess over 50 kw. hr. per month, 2¢ per kw. hr.
 Plus a monthly transformer charge of 50¢ per k.v.a. capacity required to serve the customer in excess of 3 k.v.a.

Gross earnings at this rate schedule would be as follows:

Customer paying minimum and using 10 kw. hr.	
Revenue per customer	\$12.00
Cost to serve (fixed costs) ..	\$10.09
Energy cost	2.40

Total cost	12.49
------------------	-------

Gross income (loss)	\$.49
---------------------------	--------

Customer using 50 kw. hr. per month	
Revenue per customer	\$26.40
Cost to serve (fixed costs) ..	\$10.09
Energy cost	12.00

Total cost	22.09
------------------	-------

Gross income	\$4.31
--------------------	--------

Customer using 100 kw. hr. per month	
Revenue per customer (Average 3.2¢ per kw. hr.)	\$38.40
Cost to serve (fixed costs) ..	\$10.09
Energy cost	24.00

Total cost	34.09
------------------	-------

Gross income	\$4.31
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Customer using 200 kw. hr. per month	
Revenue per customer	\$62.40
Cost to serve (fixed costs) ..	\$10.09
Energy cost	48.00

Total cost	58.09
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Gross income	\$4.31
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THE electrification of the really worth-while farms in the United States can readily be accomplished under the PWA policy of a 45 per cent outright grant of the construction cost for the distribution facilities necessary to supply electric service in these low customer density areas at a rate which should rapidly develop a free use of the service.

However the solution of making the service available (providing distribution facilities) is only the first step necessary to effectively accomplish farm electrification. Of equal importance is the necessity of providing financial assistance to the farms so that they can use electric service as soon as it becomes available. This really is the bottle neck retarding private initiative for a more rapid development of this enormous field for the application of electric power. It can be conservatively stated that in areas exceeding three farm customers per mile there would be no need of Federal assistance to provide distribution facilities if these prospective customers were fully equipped to use electric energy.

To accomplish the social importance of the electrified farm, the farm must be provided with the facilities so that electric service will improve the living conditions and make the home life on the farm attractive to the young people. This requires capital, at least under present condi-

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Q "CONSERVATIVE planning indicates that not less than 1,500,000 farms are reasonably sure of becoming customers of a farm electrification system with not less than 3 customers per mile and an additional 1,500,000 farms at an average of not less than 2 customers per mile of distribution facilities."



tions, not available to the average farmer in these areas. With average earning from \$400 to \$600 per year, budget allowances to improve the farm home so that electric service will accomplish the standard so necessary to make farm life attractive cannot be considered. It is therefore necessary to give equal and coincident consideration to this equally important second step of the farm electrification problem.

Conservatively estimated an electrified farm can be accomplished in three steps as follows:

Estimated Cost to Electrify a Farm

First step	
Wiring the dwelling 20 outlets @ \$2	\$40.00
Water piping and bath-room fixtures	100.00
Water supply pumps and tank	75.00
Septic tank	25.00
Electrification—bulbs, and miscellaneous	60.00
	<hr/> \$300.00
Second step	
Appliances, electric iron and washer	\$65.00
Refrigerator	75.00
Range and water heater	160.00
	<hr/> \$300.00
Third step	
Wiring of farm buildings	\$100.00
Allowance for farming appliances ..	300.00
	<hr/> \$400.00
Total	\$1,000.00

Assuming Federal agencies are available through which capital for these improvements can be obtained, and allowing that 4 per cent interest

with repayment of principal over a 5-year period were the terms, the average cost during the first five years for the electrified farm would be approximately as follows:

First step	
Monthly consumption 50 kw. hr.	
Electric bill	\$26.40
Loan—Fixed charge	66.00
	<hr/>
Annual cost	\$92.40
Second step	
Monthly consumption 100 kw. hr.	
Electric bill	\$38.40
Loan—Fixed charge	132.00
	<hr/>
Annual cost	\$170.40
Third step	
Monthly consumption 200 kw. hr.	
Electric bill	\$62.40
Loan—Fixed charge	220.00
	<hr/>
Annual cost	\$282.40

With farm earning averaging up to \$600 a budget allowing upwards of \$100 for accomplishing the social improvement of these farms should be reasonably possible and largely accomplish a standard of living which will do much to retain the agricultural supremacy for the United States.

SUMMARY of a country-wide farm electrification project to accomplish the electrification of 1,000,000 of the prospective farm customers is estimated as follows:

Capital costs—Distribution facilities	\$310,000,000
Federal grant 45%	139,500,000
	<hr/>

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Fixed capital (Federal or bank loans)	\$170,500,000
Revenues (100 kw. hr. per month)	38,400,000
Operating expenses	27,500,000
Gross earnings	\$10,900,000
Amortization (40 years) and interest (3%)	6,820,000
Gross income	\$4,080,000
Farm improvements (first and second steps)	
Capital costs (Federal or bank loans)	\$600,000,000
Annual cost to farmers	
Electric bills	38,400,000
Amortization (5 years) and interest (4%)	132,000,000
Total (first five years)	\$170,400,000
Total capital cost	\$910,000,000

The importance of the electric industry to avail itself of this exception-

al opportunity to reduce capital costs and the Federal government to accomplish: A—a social improvement in an industry so vital to the country; B—the revival of the capital goods production capacity of the country, should by a spirit of mutual coöperation result in a speedy allotment not only of the \$100,000,000 earmarked for this purpose but its increase to \$500,000,000 so that not less than 1,000,000 of the 3,000,000 prospective farm customers will have electric service available, making life worth while to at least this proportion of the farmers in this important occupation.



Footnote

The energy cost arbitrarily estimated at 2 cents per kilowatt hour at the meter (which includes losses in distribution) may be considered consistent and reasonable during the development stage of a farm electrification project. It is, however, obvious that any source of power to supply a rural area whether local generated or available from existing transmission lines, the cost will be largely governed by the quantity required to serve the consumer.

If generated by a rural district generating plant or purchased from an existing power source a maximum cost which could be considered as reasonable is estimated at 2 cents.

With increased use the production cost per kilowatt hour generated will materially decrease and where power is purchased, step or block rate schedules usually apply in which the first step or block is at the high rate and

each succeeding block at a lower rate. As the use increases the average price per kilowatt hour purchased is reduced, so that when a full use of the service has become general the average cost per kilowatt hour purchased may reasonably be estimated at less than 1 cent per kilowatt hour.

To encourage use the rate schedule as indicated for farm service must be supplemented by promotional rates which are sufficiently attractive to warrant the use of electric service not only for light and smaller household appliances but also for hot water heaters and motive power in farm operation.

Such promotional rates based on off-peak use or applied to use in excess of 100 kilowatt hour per month can be based on the lower brackets of purchased power or the production cost of generated power without effecting the self-liquidation of the project.

Facts Worth Noting

BEFORE 1790, John Fitch built an oar-propelled steam-powered boat, which made successful runs in Pennsylvania waters.

THE average domestic car on the Texas & Pacific travels 21.19 miles daily. The average foreign car travels 71.44 miles per day.

UNTIL 1870 freight cars, called "burden cars," were mere boxes on 4 wheels, slightly longer than wide, with capacity limited to barely 4 tons.

TEXAS & Pacific freight trains travel an average of fifteen miles an hour and the rate has not changed a mile one way or the other in five years.

Financial News and Comment

By OWEN ELY



Analysis of Principal Utility Holding Company Systems

THERE has been considerable discussion in Congress in connection with the Rayburn Bill (now in Conference Committee) whether to exempt "one-holding-company" systems, "two-holding-company" systems, or those with three or four holding companies ahead of the operating company. The writer does not believe that any such arithmetical method of attacking the holding company issue would furnish a fundamental solution. To limit the number of holding companies is as arbitrary as to confine the holding-company system to ownership of one or more "geographically integrated" groups.

True holding company reform should seek to correct financial and accounting abuses and eliminate the legal red tape due to local regulations, but not to destroy the advantages obtained through diversification of territorial risk, financial integration, engineering supervision, interconnection of load, and other important economic factors which have permitted rapid and continuous reduction in electric rates to consumers over the past two decades.

According to a compilation prepared from the financial manuals (*Moody's*, *Poor's*, and *Standard Statistics*), the systems controlled by nineteen of our largest holding companies serve a population of about 80,000,000, or nearly two thirds of our total population (this does not include large systems such as

Public Service of New Jersey, Consolidated Gas of N. Y., and Pacific Gas & Electric, which, though technically holding companies, may, from a practical standpoint, be considered operating groups). While the following figures are somewhat out of date (1934 results have not yet been tabulated in the manuals) and the results have not been carefully checked, they may be of interest as giving a general picture of the holding company situation and the difficulty of fixing arbitrarily the number of holding or subholding companies to be allowed in any "good" system.

THE intricacy of most of these systems arises not from any sinister purpose to manipulate securities or raise rates, but is undoubtedly due mainly to franchise taxes and other local or legal problems, which has required the continued existence of most of these companies on a paper basis even though 100 per cent of the stock is owned by the holding company. This is particularly the case with respect to Commonwealth & Southern, Columbia Gas, U. G. I., and some others. Thus of the 50 subsidiaries in the Columbia system, 42 were controlled by 100 per cent stock ownership, 3 by 99.9 per cent, 3 by 90-99.5 per cent, and 2 by 70 per cent (Standard Oil of N. J. owning the remaining 30 per cent of the two latter companies). Commonwealth & Southern owns "practically 100 per cent" of the stock of its subsidiaries.

If these "paper" subsidiaries in which the public has little or no stock interest

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	No. of States	Population Served (Millions)		No. of States	Population Served (Millions)
International Paper & Power Co.	7 ^a	2.8	(Equity Corp.)—continued		
Intl. Hydro-Electric System			Standard Power & Light		
4 Subsidiaries			Standard Gas & Electric	20 ^a	6.0
14 Subsidiaries			14 Subsidiaries		
6 Subsidiaries			Other Subsidiaries		
11 Subsidiaries			(not listed)		
(United Corp.) ^{1,7}			Other Subsidiaries		
Columbia Gas & Electric ...	8		(not listed)		
37 Subsidiaries			Stone & Webster		
12 Subsidiaries			Engineers Pub. Serv. Co. and		
1 Subsidiary			Others	11 ^a	2.2
(United Corp.) ¹			10 Subsidiaries		
Niagara Hudson Power Corp.	1	2.8 ^b	11 Subsidiaries		
10 Subsidiaries			2 Subsidiaries		
19 Subsidiaries			(United Corporation) ¹		
7 Subsidiaries			United Gas Improvement ...	4	5.5
Electric Bond & Share			20 Subsidiaries		
American & Foreign Power			35 Subsidiaries		
and foreign subsidiaries			1 Subsidiary		
American Gas & Electric ...	9	3.0	(American Superpower) ¹		
13 Subsidiaries			Commonwealth & Southern ..	11	9.2
American Power & Light ...	13	3.5	12 Operating Companies		
16 Subsidiaries			(Electric Power Associates) ¹		
10 Subsidiaries			American Water Works	16 ^a	2.4
Electric Power & Light	12 ^a	4.1	Water group—47 Subs.		
10 Subsidiaries			12 Subsidiaries		
9 Subsidiaries			1 Subsidiary		
10 Subsidiaries			Electric and Misc.—1 Sub.		
3 Subsidiaries			Holding Co.		
National Power & Light	6	3.5	7 Subsidiaries		
10 Subsidiaries			23 Subsidiaries		
Subsidiaries (not listed)			10 Subsidiaries		
Associated Gas & Electric Co.	20 ^a	5.0 ^b	4 Subsidiaries		
2 Subsidiaries			Cities Service Co. ¹⁰	22 ^{a,8}	4.5
12 Subsidiaries			41 Subsidiaries		
20 Subsidiaries			79 Subsidiaries		
Subsidiaries			50 Subsidiaries		
(not listed) ⁴			14 Subsidiaries		
(Various Investment Compa-			United Light & Power Corp. ..	13	5.2
nies) ¹			17 Subsidiaries		
North American Co.	8	5.0	7 Subsidiaries		
7 Subsidiaries ⁴			22 Subsidiaries		
8 Subsidiaries			7 Subsidiaries		
17 Subsidiaries			Utilities Power & Light	18 ^a	2.1 ⁸
3 Subsidiaries			19 Subsidiaries		
Pacific Lighting	1	3.1	15 Subsidiaries		
7 Subsidiaries			11 Subsidiaries		
1 Subsidiary			3 Subsidiaries		
(Equity Corp.) ¹			Middle West Utilities	15	3.3
(United Founders) ¹			15 Subsidiaries ⁹		
U. S. Electric Power and			15 Subsidiaries		
H. M. Byllesby & Co.			10 Subsidiaries		

¹ Investment company, but might technically be considered holding company under proposed utility act.

² Some properties also abroad.

³ Utility companies only.

⁴ The organization of this system is not clearly shown in the manuals and there may be further subholding companies than here indicated.

⁵ Estimated.

⁶ Also investments in Pacific Coast properties.

⁷ United Corp. also holds about 14 per cent interest in Public Service of N. J., which is not a subsidiary, but might be so considered under the Rayburn Bill.

⁸ In England 4,300,000 population also served.

⁹ Excludes subholding companies now under separate receivership.

¹⁰ Subsidiaries include a large number of oil and natural gas companies.

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were dropped out of calculations, in the writer's opinion, at least three quarters of the subsidiaries in the list on page 11 would be automatically eliminated and the holding company issue would be reduced to its proper proportions. The compilation will, however, illustrate the unnecessary and disrupting effects which the proposed "death sentence" legislation may entail if enacted so as to limit the number of holding companies.

Municipal Projects Revived on TVA Decision Reversing Judge Grubb

REVERSAL of Judge Grubb's decision by the Fifth U. S. Circuit Court of Appeals, while not conclusive in view of the apparent certainty that the issue will be taken to the Supreme Court, has revived a number of projects in the South for construction of dams, power lines, etc.

The major issue regarding TVA's rights hinges largely on the definition of "surplus" power and whether such surplus should be used "in the public interest" to establish yardstick rates. Judge Grubb had ruled that production and sale of power was not *incidental* to the major objectives of navigation, flood control, and national defense, but the circuit court held that the government had acted primarily in the exercise of its commerce and war powers, that it owned the dam and the water power thus created, and hence that it could dispose of the power (when not needed for navigation or war purposes) the same as it may any other government property. The following is quoted from an article contributed to the *New York Times* by its Chattanooga correspondent under the heading "South Hails TVA Verdict":

Accepting language of the New Orleans opinion as unanswerable, residents of the valley began to renew their association with the Authority. Projects involving a PWA loan and grant of \$230,000 to Sheffield, \$130,000 to Tuscumbia, and \$436,000 at Florence were revived, and officials forecast that construction of power lines at

Sheffield and Tuscumbia would start within two weeks.

In Chattanooga, the Public Power League, created by the act under which the referendum on the issue was held in March, found itself suddenly in a position to get down to business. Previous to the decision, the league, with the Grubb opinion making it doubtful that it would ever be permitted to build a system paralleling the Tennessee electric power wires here, had elected to start a propaganda campaign to keep the people's enthusiasm for the cause stirred up.

Jo Conn Guild, president of the Tennessee Electric Power Company, has stated that his company will not sell its distribution system here to any public agency, but will fight to the end. Hence the league faces the double problem of when to begin the effort to float its \$8,000,000 bond issue and whether opening negotiations with the power company would be worth the effort.

Chattanooga also takes hope with the new turn for the construction of Chickamauga dam near here, an enterprise for which local leaders have been battling for more than two years and making slow progress.

In an amendment to the Deficiency Appropriation Bill, introduced by Senator McKellar of Tennessee, \$3,324,000 would be allocated for beginning construction of Hiwassee, Guntersville, and Chickamauga dams under TVA auspices. The bill already contains sufficient funds to continue construction of Norris, Wheeler, and Pickwick dams, and plans for White's Creek dam, above Chattanooga, and Aurora dam, near the Kentucky line. These comprise the Tennessee dam system, as recommended in the government engineers' report, some years ago.

New TVA Act Opening Wedge for Socialism?

DAVID Lawrence, in his column in the *New York Sun*, has commented caustically on the new TVA legislation, as follows:

The utility companies have been contending that the Roosevelt administration was about to put the government into competition with them and ultimately to force them out of business. This has been vehemently denied. Now comes the administration and puts pressure on the House of Representatives and wins a victory whereby:

First, the Tennessee Valley Authority is not required to sell electricity at cost or above, but may continue to sell it below cost indefinitely, with the American taxpayer footing the bill in the form of a government subsidy paid for out of tax receipts.

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Second, the Tennessee Valley Authority is not required to submit its expenditures to the same kind of an audit as every regular establishment of the government. This was accomplished by rejecting the recommendations of Comptroller General McCarl that the TVA be required to buy materials on a bidding system and conform in other ways to government rules.

Third, the Tennessee Valley Authority may build transmission lines to compete with those of private companies and may use its financial resources to force the sale by private companies of their lines to Federal or state or city governments.

Fourth, the Tennessee Valley Authority may build whatever dams or projects it may deem desirable and connect them into one or more power systems.

Thus the Federal government, by the terms of the House and Senate bills about to become law, definitely has entered the power business, and the socialistic demand for public ownership has at last been fulfilled by the New Deal.

It was Norman Thomas, Socialist candidate for the presidency, who said the TVA was the only purely socialistic project of the New Deal. And now Congress has removed all doubts on that score by the new provisions granting to the TVA the right to do anything and everything necessary to conduct a power system or systems.

Columbia Gas Sued for \$180,000,000

COLUMBIA Gas & Electric Corporation (and certain officers and directors) were recently named defendants in a suit for \$180,000,000 filed in a Federal court by attorneys for the receiver of the Missouri-Kansas Pipe Line Company, this being "triple damages" claimed under the antitrust laws.

The Missouri-Kansas Pipe Line Company ("Mokan") claims that the defendants conspired to nullify its efforts to deliver gas to the Middle West and East at half Columbia's cost and "break down the exorbitant rate structure which the Columbia System was and is maintaining." The Columbia System is alleged to have gained control of the Panhandle Eastern Pipe Line, by inducing Mokan to enter an agreement with Columbia and abandon its arrangements with the Central Public Service Corporation. Under the agreement Mokan transferred to Panhandle Eastern most

of its natural gas fields and pipe-line systems and sold to Columbia half the outstanding stock of Panhandle. The latter then created an issue of \$20,000,000 First Mortgage bonds, which instead of being offered to the public by the National City Company was sold to the Columbia System, thus permitting the latter to retain future control despite the probable wiping out of the stock equity. (Both the pipe-line companies are in receivership.)

INAUGURATION of this suit has apparently had little effect marketwise on securities of the Columbia Gas & Electric. Missouri-Kansas Pipe Line was largely an enterprise of Frank P. Parish, and its development was accompanied by advertising of a somewhat promotional character in 1928-29; the stock declined from the 1929 high of 42 to a low of $\frac{1}{4}$ in 1931. About a year ago a Federal court granted permission to T. G. Essington, ancillary receiver for the company to file a suit to recover \$725,000 from Frank Parish and others, said to have been fraudulently obtained from the company.

Consolidated Gas (N. Y.) Rate Changes to Be Revised

THE schedule of rate changes recently submitted by Consolidated Gas System to the public service commission has been returned to the company with a request for minor revisions to meet criticisms advanced by certain consumers, although it remains possible that the rates may be allowed to go into effect August 1st.

Under the original order of the commission about two years ago, for a 6 per cent reduction, consumers would have saved about \$8,800,000 annually, it was estimated, while the new schedule substituted by the company would reduce revenues about \$6,716,000—the total reductions of \$7,142,000 being reduced by increases to certain consumers.

Principal difficulties with respect to the new rates are the fact that small consumers gain little or no benefit, that

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landlords are affected by the position taken by the company against submetering, and that the proposed new commercial rates will have the effect of increasing the charge for about $1\frac{1}{2}$ per cent of the customers served (in some cases the increase would be very high and the commission holds that increases of this sort should be avoided). Wholesale rates are unduly numerous and complicated, according to Chairman Maltbie's opinion.

Standard Gas & Electric Company Seeks Extension for Notes

STANDARD Gas & Electric is seeking extension of its two 6 per cent note issues due October 1st for five years, such extension being sponsored by H. M. Byllesby and Co., First Boston Corporation, W. C. Langley & Co., and A. C. Allyn and Company. The proposal is supported by a 114-page prospectus, which recites certain agreements of the company regarding limitations upon future financing without provision for equal mortgage security to the noteholders.

Some Utility Refunding Bond Issues in Great Demand

SOME of the recent refunding bond offerings by old-line utility operating companies proved so popular with the investing public that (to use a Wall Street expression) the bonds "went out of the window." This was particularly true of the Cleveland Electric Illuminating Company General 3 $\frac{1}{2}$ s of 1965 and the Duquesne Light Company First 3 $\frac{1}{2}$ s of 1965. Bond salesmen and customers' men in the larger banking houses struggled vainly to fill at least a part of their customer's demands, and the issues quickly went to a premium over the offering prices despite the low yields. Cleveland Electrics are now quoted around 104 $\frac{1}{2}$ (offering price was 102 $\frac{1}{2}$) to yield about 3.50 per cent and Duquesnes about 102 $\frac{1}{2}$ (offering price was 101 $\frac{1}{2}$) to yield about 3.35 per cent. The Public Service of Northern Illinois Refunding 4 $\frac{1}{2}$ s of 1960, offered at par, were apparently readily sold, but did not go to a premium. The Edison Electric Illuminating of Boston First 3 $\frac{1}{2}$ s of 1965, offered at 103.79, proved to be slightly overpriced, being now quoted around 103 to yield about 3.33 per cent.



Coming Features

Public Ownership Is No Road to Utopia

By E. C. GARVIN

Getting at the Source of Opinion Hostile to Utilities

By PRESLEY W. MELTON

The Radio Regulation Challenge

By JAMES M. HERRING

What Others Think

The St. Lawrence Project *versus* Commission Regulation

LAST November there was made public a report by the New York Power Authority on distribution costs of electricity. The scope and general purport of the Authority's report has already been reviewed in these pages (see PUBLIC UTILITIES FORTNIGHTLY, January 3, 1935). Suffice it to say here that the report found existing electric rates in the Empire state excessive in comparison with the set-up envisioned when the Authority gets its St. Lawrence system working on all cylinders. It also cast some reflection upon the ability of the public service commission of New York to regulate rates of some of the utility companies now operating in that state. Of course, as Chairman Walsh explained (when brought to task by the somewhat indignant chairman of the New York Public Service Commission), the report was only intended to apply to New York after the St. Lawrence shall have become an accomplished fact and is not, therefore, applicable to the existing conditions. Nevertheless, this fact was not generally appreciated by the public at the time the report was released, accompanied as it was by publicity which suggested that its findings of excessive distribution costs extended not only to New York, but also to Pennsylvania, New Jersey, and some New England states.

Since the report was released, the outlook for the St. Lawrence power project has become very cloudy, particularly on the Canadian side. The Ontario province, alarmed by deficits resulting from surplus power already on hand, has let it be known emphatically, at Ottawa that it is not interested in more power from St. Lawrence for the immediate future. Also, in the wake of

agitation for the St. Lawrence seaway, came the inevitable analyses. Young Ramon Wyer of the student editorial board of *Harvard Business Review*, severely criticized the feasibility of the St. Lawrence project. Writing in that periodical last April, Mr. Wyer cuts the ground from under most of the economic arguments used to justify the St. Lawrence seaway. He claims that its cost has been underestimated while its benefits have been exaggerated.

More specifically, Mr. Wyer takes up one by one the "fallacies" which have dogged the usual discussion of the St. Lawrence seaway, even in the Halls of Congress. Fallacy No. 1 punctured by Mr. Wyer is the New Trade Route myth. Backers of the seaway paint dazzling pictures of the flags of all nations flying in our Great Lakes ports. First of all, Mr. Wyer reminds us that the proposed seaway is not a new waterway route at all, but merely the enlarged (to the extent of a 27-foot minimum depth) of an existing all water route only 14 feet deep. Again, ocean freighters would be so handicapped in an economic battle with the more efficient lake vessels, in the latter's waters, that completing the seaway would only mean that more lake vessels would go up to Montreal to exchange cargo with ocean going boats, rather than that the ocean freighters would penetrate into our national lake ports.

FALLACY No. 2 punctured by Mr. Wyer is the claim made by Governor Olson of Minnesota and others that the seaway would reduce the cost of transporting wheat "by as much as 10 cents a bushel." For this saving to materialize, says Mr. Wyer, it would be

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necessary that it be accomplished somewhere on the bushel of wheat's trip between the interior lake ports and Montreal. Yet, the entire rate per bushel of wheat over the present waterway was only 3.79 cents from the head of Lake Superior to Montreal. The average rate per bushel for the same long haul has been for the past five years only 6.16 cents.

FALLACY No. 3 exposed by Mr. Wyer is the statement that "our present transportation agencies are unable to handle the freight traffic of the Middle West." The writer shows that during the years 1924 to 1928, there was an average monthly surplus of more than 240,000 freight cars in this country, while the shortages were negligible. He adds: "the problems confronting our railroads are not due to an excess of traffic but rather to a scarcity of it." Needless to say, the situation would not be helped much from the railroad standpoint by the development of the St. Lawrence seaway. The wide variety in estimates of traffic that would move over the proposed waterway alone challenge our confidence in the dependability of statements by the seaway proponents. The Department of Commerce estimated several years ago that 23,000,000 tons would move annually over the new seaway. The Great Lakes-St. Lawrence Tidewater Association put it at more than 30,000,000 a year. Yet the independent and widely respected research staff of the Brookings Institution was able to find evidence enough to forecast potential traffic of only 10,500,000 tons.

Summing up his conclusions as to both the waterway and power phases of the St. Lawrence project, Mr. Wyer states:

The case for the St. Lawrence development seems to rest upon the unsound foundation of fallacious economics. Although the proposed waterway would provide the Middle West with "cheap" transportation (since it would be upon a toll-free basis) an annual governmental subsidy of \$21,500,000 would be necessary. The enormous savings to electric power users which are predicted as a result of harnessing the St.

Lawrence are without any basis of fact. Popular misconceptions about water power and government ownership have been mingled with economic half-truths by advocates of the project. . . . If the power project were constructed and operated on a self-sustaining basis without a government subsidy, it would be hard pressed to meet the competition of privately owned utilities.

WITH respect to the power phases of the project, Mr. Wyer asserts that a statement of Chairman Walsh of the New York Power Authority to the effect that the proposed seaway would make possible in nine northeastern states a saving in power costs "conservatively estimated at \$200,000,000 a year," was utterly ridiculous and "apparently is based upon political strategy rather than upon facts." On this point Mr. Wyer states:

The colossal saving referred to would not result from the completion of the St. Lawrence project. In the words of Mr. Walsh's own Power Authority, if the project is constructed "the recognizable saving in the cost of power supply would not exceed \$10,000,000 a year." The stupendous annual saving of \$200,000,000, according to the Power Authority itself, would be derived from an entirely different source, namely, reductions in local distribution costs. These distribution costs, however, are merely the costs of local distribution from the low-pressure side of the substation and bear no relation whatsoever to the generation of the power.

The immense saving predicted by Mr. Walsh to result directly from the operation of the proposed waterway would not be derived from that source but would result from government operation of local distribution facilities, which is an entirely different matter. Contrary to the implication of Mr. Walsh's statement, it would not be necessary to build the proposed waterway in order that the people of the Northeast might enjoy that saving. And the small saving of \$10,000,000 per year, to use the words of the Power Authority, "would be scarcely discernible in the consumers' monthly bill."

FINALLY, Mr. Wyer challenges the assumption that hydroelectric power is necessarily cheap power. Ten years ago, he said, water power would have had a decided advantage over steam, but since then engineers have so improved the art of steam generation that it is no longer at a disadvantage. Since 1923, Mr. Wyer states that maximum

WHAT OTHERS THINK



Newark Evening News

WHACK!

steam boiler efficiency has been raised from 75 to 86 per cent, while the quantity of coal needed to generate a kilowatt hour of electricity was reduced from 2.5 pounds in 1922 to 1.51 pounds in 1932. On the other hand, the writer points out that "the art of hydro generation of power" is "quite static." Efficiency of hydraulic turbines reached a peak of 94 per cent about ten years ago and has not perceptibly increased since then. He claims it is quite possible that by the time the St. Lawrence project is completed steam generation would even hold an advantage over hydro gen-

eration. Commenting on Mr. Wyer's article, the *New York Sun* stated editorially:

This reasoning is more or less familiar to those who have studied this subject, but Mr. Wyer's statements are clear and should help straighten out the thinking of nonstudents who have been misled by propaganda for public ownership. Tricky bookkeeping is the main dependence of the propagandists. That is to say, they hope to make a good showing for hydroelectric power by charging off much of its cost to other things. In the case of the seaway it would be found convenient, among other items, to charge to the tolls-free navigation phases of the enterprise much which really should be charged to the hydroelectric phase. In the

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long run somebody would have to pay the bill, and that somebody would be our old friend, the taxpayer.

MORE recently, Leland Olds, executive secretary of the New York Power Authority, writing in the summer *Yale Review*, gives reasons why he believes public operation of power projects, particularly the St. Lawrence, would be desirable for other reasons than inherent economic feasibility of the project itself.

Mr. Olds feels that operation by the government of competitive power projects is necessary as a form of regulation, to supplement if not actually to take the place of state commission regulation which he feels has largely broken down. Mr. Olds is not definitely committed to complete socialization of the power industry, unless in the competitive rivalry which he visualizes the private power industry is unable to stand the pace and has to give up by default. Concerning the public ownership issue, Mr. Olds states:

This issue, in the past, has been debated chiefly between the advocates of complete private as against complete public ownership. But the experience of the last five years, both practical and investigatory, suggests that the lines need not necessarily be drawn in terms of such absolutes. Public competition implies only so much public ownership as may prove necessary to restore and maintain an orderly operation of electric power supply in terms of the public interest. It serves the twofold purpose of establishing standards, the "yardstick" idea, and of offering an alternative method of power supply to any area in which the private power interests refuse or fail to meet the implications of such standards. In an important sense it leaves the question of the extension of public ownership up to the industry itself.

IN addition to putting private utility operations on trial, the limited "yardstick" public ownership system suggested by Mr. Olds would also put commission regulation itself on trial. On this point he states:

In arriving at a decision on this issue we need not assume that the adoption of public competition as a government policy will mean the complete elimination of regulation by commission. It will be introduced as a

potential force to supplement regulation. But it will place the burden of demonstrating the necessity of regulation upon the regulatory bodies themselves in much the same way that it will require private ownership to justify its continued existence. Perhaps regulatory bodies will come to recognize that the alternative of public competition would free them from the fear of strangling litigation in their handling of rate determination. In any case, such competition should eventually tend to reduce the overhead cost of regulation, including both the budget of the governmental body and the corollary charge to the operation expenses of the utilities.

As evidence of the "breakdown" of commission regulation, Mr. Olds reviews the rather hackneyed pair of 9-year-old rate cases in New York state, which cost the litigating utilities alone upward of \$11,000,000, according to Mr. Olds' figures. Mr. Olds does concede that these are exceptional cases, but he winds up with the conclusion that the actual or potential threat of public competition has already accomplished more toward reducing utility rates than the commissions have in their period of existence. In the first place, Mr. Olds seems to be laboring under the same impression as Mayor La Guardia of New York city, who once frankly stated that "the function of the public service commission is to reduce rates." He does not seem to give much consideration to the regulation of service or the prevention of discrimination—two valuable functions performed by the state commissions which are so often lost sight of.

As evidence of the rate-reducing propensities of the threat of public competition, Mr. Olds points to low private utility power rates in Washington, D. C., Cleveland, St. Louis, Portland, Seattle, and Los Angeles. Mr. Olds assumes that the threat, and in some cases the actual fact of government competition in these communities, resulted in private utilities lowering their rates. He infers from this that the state commissions are not doing their job in keeping rates down in other communities where no such threat of government competition exists. One has some difficulty quarreling with Mr. Olds' conten-

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tion on this point because the condition he lays down that the low rates resulted from "actual or potential public competition" is so broad that one does not know exactly how much public ownership agitation amounts to "potential public competition." There probably isn't a single city over 25,000 population in the United States in which somebody at sometime or another has not suggested public ownership of the local utility plant. To classify such "threats" according to the degree of probability would be a ticklish job.

HOWEVER, this reviewer thinks it is not unfair to say that Mr. Olds is more wrong than right when he claims that low rates in Washington, D. C., result from the threat of public competition. There never was any substantial threat of that kind in the District of Columbia, according to the former chairman of the District of Columbia Public Utilities Commission, General Mason M. Patrick. Certainly General Patrick is in a better position to know about this than Mr. Olds. On the other hand, any one who has been seriously interested in utility rate regulation has probably heard of the so-called Washington plan—a profit-sharing arrangement which has resulted in annual reductions in electric rates in the District of Columbia every year since it has been in effect. Most students of regulation seem to take it for granted that Washington's low electric rate is the result of the effective working out of the Washington plan. Mr. Olds and his superior, Chairman Frank P. Walsh of the New York State Power Authority, seem to be among the few who think otherwise.

Mr. Olds also makes the statement that the little suburban municipal plant at Westmount, Quebec, has been the yardstick influence which has been driving down the rates of the private utility, serving Montreal for the last ten years. That the little municipal distribution system of Westmount with 5,000 connected meters should control the rate level of a neighboring private

utility serving over a quarter million connected meters seems as incredible as the tail wagging the dog. According to the *Wall Street Journal*, the Westmount yardstick story is a myth and Westmount has followed more often than it has led rate reductions in Montreal.

IT is undoubtedly true that the spur of public agitation has kept private rates down in some communities, notably in Cleveland, Los Angeles, and in the Pacific Northwest. It is when he speaks about valuation, however, that Mr. Olds proposes the most drastic reform for utility regulation by way of public ownership. He has apparently gone a step beyond those of his associates who have been agitating for new methods of valuation. Mr. Olds is ready to junk the whole process. He suggests that in the future standards be first in "terms of socially desirable objectives associated with the utilization of electric power." He states:

In strict terms of these objectives, it is entirely irrelevant what the construction of the Muscle Shoals plant originally cost the Federal government. In fact, both in public and in private systems, the whole conception of valuation should be discarded as rapidly as possible. It has no usefulness even as a metaphysical concept. It is a composite of the opportunist past, including all the blunders which have rendered our economic order unstable.

Could it be possible that Mr. Olds is fearful less the New York state marketing outlook for the St. Lawrence project might not appear so bright when subjected to the usual methods of accounting for the electric business? However, Mr. Olds does not confine his suggestion to public ventures like Muscle Shoals. He wants the old conception of valuation discarded with regard to private undertakings as well. He would fire "prudent investment" and "original cost" out of the window along with the more orthodox formulas that have been built up on Smyth v. Ames.

IT is difficult to imagine just how the public service commissioners of the future would fix rates under Mr. Olds'

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proposal. It is difficult enough to apply ordinary principles of valuation but it would appear to be a simple task, indeed, compared to defining terms such as "socially desirable objectives associated with the utilization of electric power." It is easy to point to admitted rate concessions made by private utilities in the face of public competition, as evidence of the effectiveness of so-called yardstick regulation. But the wisdom of such a policy as a universal and permanent program is open to serious question. The electric industry is at present a healthy and growing youngster in our national economy. It can take a lot of punishment. It has already taken a great deal. One may well wonder, however, whether it would have attained its present status if, immediately after the discovery of the electric light by Edison, the industry had been subjected to systematic subsidized public competition

and forced to base its rates, not on the business judgment of its own management in the first instance, subject to reasonable regulatory control, but on terms of "socially desirable objectives associated with the utilization of electric power." Further than that, one may well wonder if electric utility service, whether both publicly and privately operated, will continue to expand in the future if it is compelled to go along on a financial basis that substitutes "social objectives" for old-fashioned business principle of profit and loss.

—E. S. B.

FACT AND FALLACY ON THE ST. LAWRENCE. By Ramon Wyer. *Harvard Business Review*. Spring, 1935.

THE PUBLIC UTILITY ISSUE. By Leland Olds. *The Yale Review*. Summer, 1935.

"FALLACIOUS ECONOMICS." Editorial. *The New York Sun*. April 20, 1935.

Conservation the TNT of Party Politics

THE shades of two late Presidents, the genial William Howard Taft and Theodore Roosevelt, must have looked down with interest from their Olympian abode on the recent movement, said to be inspired by Secretary of Interior Ickes, to change the Interior Department into the Department of Conservation and Works. Immediately the officials of the Department of Agriculture bristled at the very thought of switching the business of reforestation from agriculture to the proposed conservation unit. It was a similar internal political row, known as the Ballinger incident, which helped to split the Republican party wide open in the Taft administration, gave impetus to the conservation movement, and made it possible for a Democrat, Woodrow Wilson, to walk into the White House for the first time since Grover Cleveland left in a gloomy mood over a political row of his own with the late William Jennings Bryan.

Just how different our national history might have been if Taft and Roosevelt had not taken opposite sides in the now ancient feud between Chief Forester Gifford Pinchot and Secretary of Interior Ballinger has been a favorite puzzle for history students to mull over. The strange part of it seems to be that history may be repeating itself. Secretary of Agriculture Wallace and Gifford Pinchot, who is still with us, dare Secretary Ickes to run away with the conservation movement. The present occupant of the White House, Franklin D. Roosevelt, does not seem to be greatly alarmed over this latest internal squabble and doubtless it will be healed without as disastrous a political split as that which gave birth to the Bull Moose party in 1912. Just the same, the conservation movement has plenty of political TNT left in it.

FORTUNATELY for those who desire political peace in the Democratic

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camp, Arthur Newton Pack, editor of *Nature Magazine* turns up with a compromise suggestion that has met favorable response in some quarters. Mr. Pack points out, in an editorial in his magazine, that there are two general classifications of natural resources. He states:

Real conservation has to do with natural resources. There are two kinds of natural resources: First, plants and animals, which are renewable in being dependent upon the soil, and which, to borrow a term from the chemists, may be called organic resources; and, second, nonrenewable or inorganic resources, such as oil, natural gas, coal, and metals. The management of inorganic resources is more or less an engineering problem, but the engineering type of mind is not the kind best suited to the administration of our renewable resources, such as plants, and animals (wild and domestic), which depend upon them. Organic or renewable resources bear the closest relationship to agriculture. While we are willing to admit that the present grouping of government bureaus is decidedly haphazard, a plan to reclassify them that neglects the fundamental differences between engineering and agriculture is a proposition likely to result in far greater confusion than ever. The passage of Senate Bill No. 2665 and its companion House Bill would, in our minds, be like jumping from the frying pan into the fire.

What, then, do we need for centralization of Federal conservation activities? Having studied the problem actively for some time, we might venture to propose the following: There should be a definite distinction between conservation of renewable resources and public works. Public buildings and public works probably do belong in a reorganized Department of the Interior, and it is also logical to assume that such a department might administer the inorganic, nonrenewable resources, such as coal, oil, gas, and metals, for this, too, calls for engineering.

In short, Mr. Pack would turn over the nonorganic resources, such as coal, oil, gas, and metals to the Interior Department under Mr. Ickes, while the supervision of organic and replaceable resources, such as vegetation, timber, fish, game, and other wild life, would be left with the Department of Agriculture under Mr. Wallace. The Scripps-Howard newspaper chain, strong in the support of both the present administration and the conservation movement

generally, saw much merit in Mr. Pack's suggestion. An editorial in its *Washington* (D. C.) *Daily News* stated in part:

Certainly there is need of a regrouping of conservation activities. These are scattered now in many departments and often work at cross purposes. We see the Bureau of Reclamation building power dams and cutting off the migration of salmon; the Forest Service regulating grazing in national forests and a new Grazing Division doing it another way under the Taylor Act on the public domain; the Bureau of Education managing reindeer raising in Alaska; the National Parks in the Interior Department and the National Forests under Agriculture; the Bureau of Fisheries in Commerce and Biological Survey in Agriculture.

But regrouping should not be done by the old method of grab-as-grab-can. More important than some temporary secretary's power and prestige is the saving of our vanishing natural wealth. Let us, by all means, reshuffle the conservation cards. And perhaps out of it we can get a new deal for ourselves and posterity.

THE supervision of irreplaceable natural resources is a matter of considerable importance to the gas and electric utility industries. Perhaps one of the first and most desirable jobs that a newly reorganized conservation movement might undertake would be a fairly accurate survey of the extent of these resources, the rate of present usage, the prospect of further discoveries. True, much information along this line has already been assembled, but in a more or less haphazard fashion and frequently under circumstances that leave doubts as to the absolute validity of the conclusions reached.

For example, Mr. Ickes has published some very alarming predictions about the rapid diminution of our oil, gas, and coal supplies. Dr. Rexford G. Tugwell has frightened us with dire predictions about the Sahara desert that is sure to develop in our Middle West, unless we make haste with irrigation, flood control, and reforestation. The Mississippi Valley Committee of the Public Works Administration and the National Resources Board follow this up with suggestions that we should develop all the water power possible in order to con-

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serve our other national fuel resources, such as oil, coal, and gas, because water power is self-replenishing, while our oil, coal, and gas supplies are irreplaceable and should be used up with the greatest of care.

ON the other hand, the coal, oil, and gas industrial spokesmen are inclined to view with skepticism these gloomy pronouncements. They think there is plenty of coal, oil, and gas if it is only reasonably regulated. Some of these industrial leaders have ventured the belief that the conservation scare is in large part propaganda designed to bolster up the administration's reasons for building power, irrigation, and flood control dams in sections of the country where they are otherwise economic absurdities, if gauged by usual business practices. They hint that some of these new projects appear to have been approved with more of an eye on the ballot box than on our diminishing natural resources. If the administration really wants to save coal, oil, and gas, they ask, why doesn't it build the power dams in places where the power would really be marketable, instead of in remote and desolate sections, such as Passamaquoddy, Maine?

Well, what are the facts? A comprehensive and absolutely unbiased survey along these lines, or an up-to-date report based on survey material already assembled, if the latter is found still useful, is a public works project that Mr. Ickes might well undertake in the name of real conservation.

BY an interesting coincidence, Mr. Pack's editorial distinguishing the conservation of fish and animal life from the conservation of mineral resources, appears in the same issue of *Nature Magazine* as an article by William L. Finley which describes how these two conservation movements can seriously conflict with one another. Mr. Finley discusses how the Columbia river dams (Grand Coulee and Bonneville) seriously threaten a great natural resource which supports an industry

earning from 10 to 12 million dollars a year—the salmon fisheries of the Columbia. The situation has reached a stage where it has become just one big question for the American people to decide—salmon or kilowatts? Mr. Finley describes the situation as follows:

Building dams for purposes of power or irrigation, whether actually needed or not, has become a national mania. From the point of view of conservation it has also frequently become a national menace. Spurred by plans to provide employment through public works, many such programs have been undertaken without adequate thought being given to their general value and effect. Some of these projects destroy existent wealth or endanger some other resource. The construction of dams in the Columbia river in Oregon is a typical instance.

Of all the rivers in the world, the Columbia is the greatest salmon stream. It has produced, and still produces, more and better salmon than any other stream. In February or early March the great spring Chinook salmon leaves the ocean and starts its dramatic run. Slowly it fights its way up the river, a thousand miles or more, to the spawning beds at the headwaters. There, in September, the eggs are laid and from these headwaters the fingerlings must make their way back to the sea. Nature has endowed this fish with this migratory urge. The salmon has found the Columbia river to be a stream where conditions are favorable for it to answer the call. If these conditions are destroyed the salmon run is destroyed. No power of man or Nature can restore it.

ON the economic side, Mr. Finley figures that the income from salmon fisheries of the Columbia amounts to 5 per cent on a two hundred million dollar investment. Is this not good reason to pause long and thoughtfully before destroying forever such a resource by building power dams, the economic value of which is, to put the case most charitably, a big question mark? Mr. Finley is doubtful that artificial fishways can overcome the fatal obstruction to the salmon run on the Columbia when and if the high dam at Grand Coulee is constructed. He says that "no experience in the past shows how to reconcile high dams with the migratory habits of such important fish as the salmon." We do not know what will happen to the

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schools of fingerling (newly hatched young) when, returning to the ocean, they encounter the heavy flow of water through large turbines. If the Federal authorities had given serious thought to the matter, in the opinion of Mr. Finley, they would have discovered that the very change of the contour of the Columbia river into a series of great lakes will result in the destruction of the spawning places of the salmon. He charges that no such study was made. The money for Grand Coulee and Bonneville has been appropriated and the projects are under way without any prior consideration whatever being given to the preservation of the salmon and the fate of those who have heretofore made a living out of Columbia salmon.

After considerable agitation by the Bureau of Fisheries, according to Mr. Finley, two elevators to transport the salmon over the dam will be installed. Mr. Finley hopes for the best concerning the functioning of these elevators, but adds "it is not known whether the fish will enter these complicated devices." The original recommendation of \$5,000,000 for salmon protection made by fish experts has been cut to \$3,200,000 by Secretary Ickes. Mr. Finley concludes:

Thus the Federal government is experimenting and gambling with a natural resource of high value. It is endangering an important food supply. While spending billions in many debatable ways, it is saving a million or so by tampering with the future of a two hundred million dollar industry. And, sadly enough, there is grave question whether conceivable future needs for electrical energy will ever justify pouring millions into the building of the dams at Grand Coulee and Bonneville.

AN interesting conclusion to all this discussion about planning the present and future dispensation of our natural resources is reached in an amusing article by Robert Littell entitled "To Hell with Posterity." Writing in *Ex-Brain Truster* Raymond Moley's magazine *Today*, Mr. Littell questions whether the present generation of planners and reformers is going to too much un-

necessary trouble and expense for the unborn generations. The gist of Mr. Littell's argument seems to be that since we of the present have no way of knowing just what direction future discovery and invention will take, we should not be too hasty with ambitious plans for grandiose projects that may be obsolescent (but unpaid for) by the time our descendants get around to using them.

What, asked Mr. Littell, would we think of our forefathers if, before the invention of the railroads, they had decided that canal systems were the best possible gifts they could have made their descendants. Suppose they had cluttered up the whole country with thousands of miles of winding ditches, locks, towpaths, and fleets of canal boats. Railroads would have quickly covered the country like spider webs, and the canals would have slowly filled with silt, the towpaths would now be obliterated by weeds, and the Federal government would be left with millions of dollars worth of 6 per cent Canal Gold Bonds. Would we be grateful to our planning elders? We would not, says Mr. Littell. We'd probably be regarding them as the biggest boobs in history. Mr. Littell stated:

If we knew that science was never again going to give us new methods and new materials, then, and then only, could we seriously begin to plan. But science will not stop, and must not be allowed to stop, and every time we plan canals someone will invent steam engines, and no sooner have we planned our lives according to railroads than someone will invent automobiles and airplanes. This disheartening but magnificent principle is true for every corner of human life.

It may be objected that planning has many spheres of usefulness besides such tangible things as railroads and machinery. It may be argued that we need to plan socially, medically, financially, economically, as well as for things physical and industrial. The answer is: (1) That the quantity of human labor necessary to produce what we need, and the geography of where that labor works, lie at the root of all other questions; and (2) that science may upset social and financial planning just as completely as railroads have upset canals. Science has recently added ten years to the span of human life—it may soon find ways to add many decades more. All our plan-

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ning of a perfect banking system may be ruined by something not unlike the alchemist's transmutation of lead to precious metal, or by the discovery of an inexpensive way of turning to bullion the ten million dollars worth of gold afloat in every cubic mile of sea water. What gratitude for our old-age pensions and vaults and metal reserves will be felt by a posterity which lives to an average age of eighty years and uses gold for its plumbing pipes?

To illustrate, Mr. Littell takes an imaginary flight to the year 1955. What are the possibilities? Perhaps the improved Diesel engine will wreck the oil refining industry and revolutionize the motor car industry. Synthetic clothing and food will knock our present textile and packing industries, together with our planning for hay and cotton growers, and the Negro, into a cocked hat. Cattle and sheep may even be useless, except as objects of zoological interest. There will be vast migrations. All the planned economic maps of the United States will fill waste baskets. Most of the things we need will be built up by molecular chemistry from the rawest and commonest materials. Railroads will be practically obsolete. (Pshaw, there goes Mr. Eastman's Railroad Plan!) Coal will be turned into electric power at the mine. (Bituminous coal industry please notice.) Population will be completely decentralized so that our slum clearance projects will be unnecessary and useless. So much for the flight into the future.

Coming back from this fanciful voyage, Mr. Littell concludes:

Any large-scale plan is based on the political philosophy of the society it attempts to serve, any carrying out of a plan on a large scale binds future generations to live more or less according to that philosophy even if they have come to want something quite different. An honest answer to the question of what are we planning for would nip a great deal of long-term planning in the bud, because we don't know what we are planning for; we don't in the least know what the mental and moral outlook of the next generation is going to be. Every plan we make fastens some of our ideas on the next generation. Have we any right to do that? In all our planning we should remember how much there is we don't know about the possibilities of science, about the possible changes in men's minds. So the most important item in any long-term plan is surely the planning of pages that must be left blank, the planning of not to plan at all.

In other words, Mr. Littell wants a plan to end all plans. This position recalls the retort attributed to Edmund Burke, "And what has posterity ever done for me that I should be doing things for posterity?"

—F. X. W.

CONSERVATION. Editorial. By Arthur Newton Pack, Editor, *Nature Magazine*. August, 1935.

THE CONSERVATION ROW. Editorial. *The Washington Daily News*. July 22, 1935.

SALMON OR KILOWATTS. By William L. Finley. *Nature Magazine*. August, 1935.

TO HELL WITH POSTERITY. By Robert Littell. *Today*. July 20, 1935.

Notes on Recent Publications

BIBLIOGRAPHY OF WORKS ON ACCOUNTING BY AMERICAN AUTHORS. By Harry C. Bentley and Ruth S. Leonard. H. C. Bentley, 921 Boylston Street, Boston, Mass. Volume I, 197 pages, \$3.50. Volume II, 408 pages, \$4.50. Combination, \$7.50.

Of interest to utility executives and accountants is the fact that half of the supplement in the second volume is devoted to listing public utility industries for which uniform systems or uniform classification of accounts have been prescribed, with the names of Federal or state government regu-

latory bodies listed alphabetically under each heading (pages 335 to 363).

SIX WAYS TO FIGURE RADIATION. By Harold L. Alt. Domestic Engineering Publications, 1900 Prairie Avenue, Chicago, Ill. 1935. 64 pages. \$2.00.

THE ELECTRIC LIGHT AND POWER INDUSTRY IN 1934. Statistical Bulletin No. 2. 1935. Edison Electrical Institute, 420 Lexington Avenue, New York, N. Y. Price 30 cents to members; 75 cents to nonmembers.

The March of Events

TVA Suit Again

UNDETERRED by the recent victory of the Tennessee Valley Authority in the U. S. Circuit Court of Appeals decision upholding the constitutionality of the TVA law, power interests took further steps to prevent the Tennessee Valley Authority from obtaining market outlets for the power it produces.

The Alabama Power Company, of Birmingham, filed suit in the District of Columbia Supreme Court to block the Public Works Administration loan-grants with which four Alabama towns plan to build systems for distributing power bought from the TVA. Federal Judge Oscar Luhring recommended a hearing August 1st on the petition.

There have been more than thirty such suits against the Public Works Administration to block loan-grants to municipalities so that they might establish publicly owned utility plants, according to Secretary of Interior Harold L. Ickes, who believed that such a multiplicity of suits constituted evidence that they were inspired by some central agency. Secretary Ickes' remarks were made in reaction to a statement inserted in the *Congressional Record* by Senator Norris (R.) of Nebraska. Senator Norris had quoted a report by President Thomas N. McCarter, president of the Edison Electric Institute, to the effect that the Institute had spent \$50,000 on the TVA test case (*Ashwander v. Tennessee Valley Authority*) and had paid Newton D. Baker and James M. Beck \$35,000 for their opinion which viewed the Tennessee Valley Authority as unconstitutional.

Utility Lobby Probe

NOTWITHSTANDING a semitropical heat wave that oppressed the city of Washington during the almost entire month of July, special House and Senate committees continued their investigation into alleged lobbying for and against the death sentence in the Rayburn-Wheeler holding company bill, now in the process of conference between the two branches of Congress.

Earlier in the month the House Committee had arrested the attention of the nation with its investigation of charges by Congressman Brewster (R.) of Maine that Thomas G. Corcoran, attorney for the Reconstruction Finance Corporation, had threatened to have work on Passamaquoddy power project in Maine held up unless Brewster voted for the death sentence, in accordance with the wishes of the administration. Mr. Corcoran denied

these charges and his denial was substantiated by Dr. Ernest Gruening, former Maine publisher, who was at that time in Washington in connection with another Senate investigation—one concerning the administration of the Virgin Islands. Subsequently, two of the secretaries in Representative Brewster's office substantiated the congressman's charges.

The following week, the Senate Investigating Committee under the chairmanship of Senator Hugo L. Black of Alabama stole the spotlight from the House Committee's endeavors by unearthing evidence that utility company employees had faked telegrams in an effort to influence congressional votes. Representative Driscoll of Pennsylvania told the Black committee that he received 816 telegrams on the utilities bill from Warren, Pa., 114 signed with last names beginning with B. One was from John S. Bayer, a friend of his who denied sending it. Others had entered similar denials.

The Senate Committee then examined local officials of the Western Union Telegraph Company and the Associated Gas & Electric Company. It was indicated that several hundred telegrams sent to Representative Driscoll had been sent from the Warren telegraph office along with signatures taken out of the city directory. After the Senate investigation started, the originals in the Warren office had been destroyed. Among the witnesses examined as to this incident was Paul Elmer Danielson, Western Union messenger boy from Warren, who told how he had been promised 3 cents for every signature he could get to telegrams protesting the utilities bill.

Chairman Philip H. Gadsden, of the Committee of Public Utility Executives, a voluntary organization formed by various utility companies for purposes of fighting what they regarded as destructive features of the Rayburn-Wheeler Bill, promptly issued a statement denying that any of the companies affiliated with his committee had had anything to do with the fake telegrams or other questionable practices indicated by testimony before the Senate group. Deploping such tactics, Mr. Gadsden declared that congressmen should not be influenced by evidence of isolated abuses of this nature, and expressed the hope that Congress would proceed to dispose of the holding company bill on its own merits.

Among the other witnesses questioned by the Senate Committee was President John W. Carpenter of the Texas Power and Light Company, who denied that he had brought any improper pressure to bear on certain Texas congressmen whom he interviewed

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during a visit to Washington at the time the utility bill was being debated.

The House Committee continued its investigation by interrogating Dr. Hugh S. Magill, president of the American Federation of Utility Investors, Chicago, Ill. Dr. Magill denied any improper pressure was brought by his organization to influence congressional action on the Rayburn-Wheeler Bill, but frankly admitted that he and the members of his organization had done all in their power to influence public sentiment against what was regarded as destructive features of the bill, and to instigate the sending of letters and telegrams to members of Congress. Dr. Magill concluded his testimony by urging Congress to investigate the administration lobby for the death sentence by the use of "pork barrel bribery."

President Hits Corporation Gifts

PROPOSALS that limited tax exemption be allowed on profits of corporations who contributed to charitable organizations were rejected by President Roosevelt July 24th. In taking this stand, he said he was actuated by the same reasons that caused him in 1929 or 1930, as governor of New York, to veto a bill that would have permitted public utility companies to make contributions to organized charities.

Granting of exemption from profits thus contributed, he went on, would mean the sanctioning of two unsound practices: First, the purchasing of good will by corporations, and, second, the authorizing of corporation officials to exercise a right in bestowing gifts that belonged properly to the individual stockholders in the corporations.

Mr. Roosevelt's views brought a quick protest from organized charities that have sponsored a tax-exemption measure of this character. The Community Chests and Councils, Inc., of New York city, in a statement issued from New York city, pointed out that \$20,000,000 annually had been contributed to social agencies in 417 cities in the form of corporation gifts.

Television Cable Approved

INSTALLATION of a coaxial cable between New York and Philadelphia by the American Telephone and Telegraph Company for experimental television and multiple telephone and telegraph service was authorized by the Federal Communications Commission on July 24th.

All parties having an interest in the transmission of television images should have access to use of the cable during the experiments, the commission held. Where all parties are unable to agree upon terms, the commission will decide. Right to use the cable exclusively for the development of television patents was denied to the American Telephone

and Telegraph Company. American Telephone and Telegraph Company's new coaxial cable was portrayed as an avenue to lower toll call rates for telephone users and a factor in development of the television field at the hearings before the Federal Communications Commission.

H. S. Osborn, transmission engineer for the company, told the commission that annual carrying charges on the new cable, plus terminal equipment, for a distance of 500 miles would be only one third of the cost of carrying charges on present-day equipment of similar capacity. Answering a direct question from Frank Roberson, attorney for the Federal Communications Commission, Mr. Osborn said that "it was not too much to say" that installation of the new cable would bring, over a period of years, a lowering in toll call rates, provided the cable came up to the company's expectations.

RFC Quits Utility Control

THE Reconstruction Finance Corporation stepped out of control of the Utilities Power and Light Corporation, \$300,000,000 international holding and operating company lately controlled by Harley L. Clarke, in a transaction which involved the exchange of certain notes it held for debentures of the corporation recently purchased by Atlas Corporation in the open market. In effect, the Reconstruction Finance Corporation becomes an investor rather than the holder of a controlling interest in the management.

A statement was issued by Floyd B. Odlum, president of Atlas Corporation, in which he confirmed an announcement by Jesse H. Jones, chairman of the Reconstruction Finance Corporation, to the effect that the latter had stepped out of control of the utility holding company.

Mexico Planning Power Sites

THE government of Mexico is making a nation-wide survey of hydroelectric power development possibilities and perhaps within a few months will be ready to recommend construction patterned after that started in the United States in the last decade, the Mexican ambassador to the United States, Dr. Francisco Costello Najera, revealed on his arrival for a banquet which he recently attended at Knoxville, Tenn.

Dr. Najera indicated that among the sites for Mexico's projected new hydroelectric projects, the county in which Mexico City itself is located would be chosen. This work, he said, would be both government-subsidized and built by private capital.

Dr. Najera later inspected the Norris dam. He was accompanied by Dr. Arthur E. Morgan, chairman of the Tennessee Valley Authority.

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Alabama

Cities Push TVA Plan

FOLLOWING the recent decision of the U. S. Circuit Court of Appeals, holding the TVA act constitutional, the Alabama state public works' director is engaged in preparing and executing construction contracts for electric transmission lines in the cities of Sheffield, Tuscumbia, and Florence. The proposed system in the tri-cities, which are all adjacent to Muscle Shoals, would parallel present lines of the Alabama Power Company. It was indicated that previous options to purchase the existing systems would not be exercised. The cities would retail Tennessee Valley Authority power.

Meanwhile, David M. Lilienthal, TVA power director, was reported as signaling "full steam ahead" to Tennessee valley towns interested in the Tennessee Valley Authority power program. Government lawyers at Washington were reported to perceive a possibility that the U. S. Supreme Court might allow the circuit court's decision to stand without a rehearing in the high court.

The decision of the U. S. Circuit Court of New Orleans binds all lower Federal courts in Alabama, Mississippi, Louisiana, Georgia, Florida, and Texas, thereby embracing practically all of the possible operating territory of the Tennessee Valley Authority system except Tennessee and Kentucky.

Arizona

Phone Tax Base Cut

A REDUCTION of \$30,281 of the assessed valuation of telephone and telegraph proper-

ty in Arizona was placed on the rolls by the state tax commission. The 1935 valuation was placed at \$8,516,474, compared to \$8,546,755 in 1934.

Arkansas

Rate Probe Broadened

THE state department of public utilities issued an order broadening the scope of a proposed investigation of electric rates at several coal mines in Sebastian county to include all business of the Southwestern Gas and Electric Company in that section.

A petition was filed with the department several weeks ago by eleven coal operators, composing the Arkansas Smokeless Coal Bureau. The petitioners charged that the company required them to pay excessive rates.

Collection of Sales Tax Enjoined

A PERMANENT injunction to restrain Revenue Commissioner Earl Wiseman from collecting the 2 per cent sales tax on artificial gas manufactured and distributed from the Helena plant of the Arkansas Utilities Company was issued by Acting Chancellor Taylor Roberts in Pulaski chancery court.

The court overruled the state's demurrer to the suit which was filed by the utility company and a consumer, seeking definition of that section of the Hall sales tax law levying the 2 per cent tax on sales of natural gas but omitting artificial gas.

Joint Public and Private Venture

AN interstate partnership arrangement between a municipality and private utility interests appeared to be developing at Little Rock where officials of the American Waterworks Company have agreed to consider a proposal to join the city administration in securing a new water supply. Following a conference, the mayor revealed that the city had offered to request a \$3,000,000 Federal loan for construction of a dam on the Saline river in return for the company's contract to buy water at the city limits. Payments by the company would be fixed at an amount sufficient to pay off the Federal loan, while the water company at the same time would reduce water rates by approximately \$184,000 a year.

The company had suggested a counter proposition which involved the building of a dam on the Little Maumelle creek and the continuing use of an existing pumping station, unnecessary under the city's proposal. Regardless of the outcome of the negotiations, it was apparent both city and utility officials had agreed on the necessity of a new water supply for the city.

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California

Central Valley Okayed

THE U. S. National Emergency Council on July 24th allocated \$20,000,000 of emergency funds to the Central valley project. The project will cost \$167,000,000 and will take four years to complete.

Utility Issue Raised on City Official

THE renomination of Health Commissioner McGahan of Los Angeles failed of confirmation before the city council in mid-July after a bitter controversy which, according to the *Los Angeles Times*, indicated that the quarrel between Bureau of Power and Light officials and the Los Angeles Gas and Electric Corporation lies in the background.

The opposition to Mr. McGahan appeared to be that he had been president of the

Municipal Affairs Committee, which actively supported the fight in the last April election for a new franchise for the local gas companies. Mayor Shaw subsequently indicated that he believed Mr. McGahan's renomination would ultimately be confirmed.

City Bureau Wins Bond Fight

BRINGING to an end litigation of several years' standing, the California district court of appeals for the fourth appellate district affirmed judgment in an action instituted by the department of water and power of the city of Los Angeles, which sought to avoid the sale of bonds and coupons valued at \$1,038,000 of the Ownes Valley Irrigation District.

If the decision had gone against the department, it would have been compelled to redeem the bonds and coupons at full face value. The court's judgment requires holders of the bonds to surrender them with the coupons thereon.

Colorado

City Plant Fight Ends

THE long-standing legal battle between the city of Ft. Collins and the Public Service Company of Colorado over the purchase by the city of the light and power distribution system owned by the company appeared to be nearing its end in late July. A stipulation

filed by attorneys was on file with the state supreme court by which dismissal of the appeal proceedings in the condemnation suit brought by the city was agreed upon.

Early acceptance by the company of the city's check for the condemnation price was predicted. The price agreed upon was reported to be approximately \$216,500.

Connecticut

Private Appliance Financing

DOWN payment plans comparable to those extended by the United States government through the Tennessee Valley Authority

are now being offered purchasers of domestic electric appliances in the vicinity of Hartford, Conn., through a private financing plan, in which local dealers, the electric utility, and a finance corporation are coöperating.

District of Columbia

Congressmen Interested in Taxi Rate Dispute

TAXI drivers protesting against the public utilities commission's new schedule of rates were being championed in the halls of

Congress by Representative William T. Schulte, Democrat of Indiana. Schulte was vehement in his disapproval of low rates allowed local taxi drivers, and indicated any attempt to remedy the situation by legislation would meet with his favor.

Schulte, in a discussion with Representative

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Wright Patman (D.) of Texas about District taxicab rates, became incensed when Patman coolly observed that taxicab rates in Washington were sufficiently high. "Why, in my home town they have a 10-cent taxi rate," Patman said.

Patman comes from Texarkana, Tex., with a population of about 35,000. He is a close associate of Representative Thomas L. Blanton, also of Texas, who was condemned by hackers as being responsible for blocking installation of meters in cabs.

"The taxicab people are underpaid and can't make a decent living," Schulte asserted. "Why the other day I rode five miles and all they asked was 30 cents. How can a man live at that rate?"

Schulte said he was in sympathy with the protests of the drivers against the PUC order. "There is a great uproar when government workers are cut 15 per cent of their salaries, and there should be an uproar," he declared. "Now, why shouldn't these drivers complain when they, too, receive a cut?"

Schulte said he was in favor either of installing meters or shortening the zones.

Chairman Mary Norton of the House District Committee indicated she was opposed to carrying the taxicab fight to Congress. "I realize," she said, "that taxi drivers here have a difficult struggle to exist. But how can Congress give certain powers to the public utilities commission and then take decisions

out of the commission's hands and reverse them. We might just as well not have set up a commission in the first place."

Gas Case Started

A COURT attack on the gas companies valuation fixed by the local public utilities commission was instituted in the District of Columbia Supreme Court when the Washington and Georgetown Gas Light companies (operated under joint control) asked that the commission's valuation be set aside. The companies' brief alleged that the commission valuation was arbitrary, unreasonable, and inadequate, and that it refused to include several millions of dollars for various items claimed by the utility.

A second attack on the valuation in the same court was anticipated from William A. Roberts, people's counsel. Mr. Roberts will also contend that the commission's valuation is incorrect, but it was said he believed that the commission erred in favor of the companies, even to the extent of disregarding important testimony of its own expert witnesses.

Among the disputed valuation items were: Sums claimed by the company for the conduct of its appliance business; cost of financing various aspects of the business; allowance for "going concern" value, and a proper charge for accrued depreciation.

Illinois

Utility Sales Tax

SEVERAL utility companies operating in Illinois were planning to petition the state commission for authority to pass the 3 per cent sales tax on to their customers, according to the *Chicago Tribune*. The commission has been studying the status of various utilities to determine whether or not they should

be permitted to pass the tax on. The legislature in its last session increased the general tax from 2 to 3 per cent and expanded its scope to include utilities.

Chairman Lindeheimer of the commission had previously announced that the tax must be absorbed by the utility companies, unless they can convince the commission that their financial standing would be jeopardized.

Indiana

Rural Electrification Approved

RURAL electrification projects in Indiana need only the money to put them into effect, as a result of the removal of preliminary obstacles by the Indiana commission, when it authorized the Indiana Statewide Rural Electric Membership Corporation to operate. The commission granted to the company, a Farm Bureau associate, a certificate

of convenience and necessity and approved its articles of incorporation.

An exclusive franchise to operate in the state went with the commission's order, since the rural electrification enabling act passed by the 1935 legislature authorizes only one parent corporation to operate in a given county. The commission's order gave the farm bureau concern authority for all 92 counties of Indiana.

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Two other petitions for parent company permits, both under the name of the Utilities District of Western Indiana Rural Electric Membership Corporation, were left pending by the commission. It was expected that they

would ultimately be dismissed in view of the fact that there are no available counties left in which they could operate. Federal loans will be sought by district corporations, it is reported.

Iowa

Fight PWA Funds for City Plant

AN application for an injunction to prevent Iowa City officials from using Federal funds for the construction of a municipal plant was filed in the Federal district court by three Iowa taxpayers, C. A. Schmidt,

James J. Hanlon, and Dr. D. F. Fitzpatrick.

The petition followed a protest by 97 local taxpayers against the city's action in using part of the city's consolidated fund to pay engineering and legal fees in connection with the obtaining of a PWA loan-grant. City officials claim that the municipal light plant did not cost the taxpayers anything and that the consolidated fund would be reimbursed.

Louisiana

PWA Cash Held Up

UNtil laws giving state officers supervision over the expenditures of Federal funds are repealed, Louisiana will not receive any Public Works Administration money, it was announced by Secretary of Interior Harold L. Ickes.

Secretary Ickes made it plain that all PWA projects in Louisiana have been "stopped cold," and that no new projects for

the state will be considered until legislative acts dictated by U. S. Senator Huey P. Long are wiped off the books.

Mayor T. Semmes Walmsley of New Orleans in a statement issued shortly afterwards asserted that he was confident he would be able to arrange with Washington authorities so that the sewerage and water board PWA contracts for New Orleans would go forward. These two projects are calculated to provide work for 4,000 men.

Massachusetts

Sliding Scale Favored

THE Massachusetts Senate moved toward favorable action on a resolution providing for an investigation by a special commission into the advisability of installing the sliding-scale system of rates throughout the state.

The commission would be given an appropriation of \$5,000 with which to conduct its investigation of the rates charged by gas and electric companies.

Senator Thomas Burke of Dorchester sought to increase the appropriation to \$15,000, but later withdrew his motion.

Minnesota

Rural Program Sought

ARURAL electrification program for Minnesota was recommended by the State Planning Board in a report made public last month by Governor Olson.

The report is based on a survey by the board's electric power committee under SERA authorization started in March, and completed in July. It stresses the fact that Federal funds from several sources now are available and that this is, therefore, the logical time to

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provide electric service for those sections of the state which are without this facility.

Asserting that there are five methods by which the program could be carried out, the report lists extension of private systems, extension of municipal systems, ownership of lines by coöperatives, with power purchased from adjacent municipal or private systems; coöperative ownership of distributing lines and generating plants, and creation of a state electric power authority.

Utility Issues in Twin Cities

THE St. Paul, Minn., city council learned with apparent surprise early in July that hearings were to be held by an engineer of the Public Works Administration on the proposal of the Minneapolis Gas Light Company to cross the Mississippi river with a new line

into St. Paul. The city council thereupon went on record as opposing such permission, according to the *St. Paul Dispatch*.

Mayor Gehan of St. Paul was unable to see why the Minneapolis Company should come to St. Paul with natural gas, when the facilities of the Northern States Power Company are already available.

The Duluth, Minn., city council is already on record in favor of the proposed line, which would bring gas from Montana fields.

Meanwhile, on the other side of the Twin cities, Farmer-Laborites in control of the Minneapolis city council demanded a four million dollar cut in the electric rates of the Northern States Power Company, and prepared to collect approximately \$700,000 in additional taxes, as well as to set in motion plans for a publicly owned electric power plant.

Missouri

Power License Forfeited

THE Empire District Electric Company, which held priority on a water-power site on the White river at Table Rock, Mo., for more than twelve years lost its license July 16th.

The Federal Power Commission entered a formal order terminating the company's license for failure to start construction on the hydroelectric project by December 1, 1934, as provided for in the license. The company, denied a 2-year extension of time by the com-

mission on June 11th, failed to respond to an order to show cause why its license should not be canceled.

Proponents of government development of the project, including Senators Clark and Truman and Representative Wood, Missouri Democrats, now plan to press for an early hearing on their application for \$14,284,000 from the works relief fund. The application long has been pending before the Public Works Administration, but action on it had been withheld pending final determination of the case before the power commission.

Nebraska

Telephone Case Appealed

THE state supreme court has given permission to the Northwestern Bell Telephone Company to appeal direct to the U. S. Supreme Court from the former's findings that the Nebraska commission has power to fix the yearly rate of depreciation to be entered on the company's books, and that it had not erred in fixing the rate at 3½ per cent of the rate base for 1934.

street lighting and pumping service expired eighteen months ago and several attempts have been made without success to negotiate a new contract. The company claims that the city is delinquent in its payment for services already rendered.

Power District Sought

THE city of McCook, home town of U. S. Senator Norris, is trying again to get a municipal electric plant. The voters last year rejected such a plan but an attempt is now under way to create a power district under a new state law.

State Engineer A. C. Tailley issued an order overruling protests of the Nebraska Light & Power Company. The order may give McCook authority to organize a district and establish a municipally owned power plant, if finally approved by the voters.

Delinquent City Customer

THE Central Power Company early in July served notice on the mayor of the city of St. Paul, Neb., that unless an agreement could be reached on payment of the city's delinquent bill, service would be discontinued at an early date.

The company's contract with the city for

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New York

Westchester Gas Rate Cut

REVISED gas rates filed by the Westchester Lighting Company bringing a saving estimated at \$560,000 to Westchester consumers were allowed to go into effect on August 5th without approval or disapproval of the New York Public Service Commission.

The reduced rates apply to residential consumers who use more than 3,000 cubic feet of gas a month and to commercial customers using more than 5,000 cubic feet a month. Residential consumers in the county will save \$484,000 a year, it is estimated, while commercial consumers will save about \$70,000 a year. A transfer of some customers from the wholesale to the commercial rate will produce

savings which will make up the balance.

City Tax Upheld

NEW York city's utility tax levied for unemployment relief was unanimously upheld by the New York Court of Appeals in decisions involving the New York Steam Corporation and the New York Telephone Company. Both utilities had appealed the imposition of the city's 1½ per cent sales tax because the ordinance was unconstitutional.

The state court also unanimously upheld the constitutionality of a recent state law requiring public service corporations to pay the cost of rate investigations conducted by the state public service commission.

North Dakota

Rate Cut Ordered

THE North Dakota Board of Railroad Commissioners ordered the Northern Power and Light Company, and the North Dakota Power and Light Company to reduce electric and steam-heating rates 25 per cent, pending revaluation of their properties by the commission.

As an alternative, pending outcome of the

investigation, the company may impound collections up to 25 per cent to assure a refund to customers of the two utilities, in the event the board of railroad commissioners makes the rate reduction permanent.

The order summarily reducing the rates was made in a resolution adopted by the commission after it failed to reach an agreement with the utilities to voluntarily reduce rates at least 15 per cent.

Ohio

Gas Rate Disputes

OHIO communities continue to worry over gas rates. At Bucyrus, where the Ohio Fuel Gas Company is seeking an increase, the city council has under advisement an ordinance to serve as a basis for negotiations. The Urbana city council is in controversy with

the same company over a pending ordinance fixing a 48-cent rate to replace a rate of 63 cents which will expire October 1st. The Lima council has rejected a resolution sponsored by the mayor of Lima, demanding that the West Ohio Gas Company supply natural gas by October 1st or face loss of its franchise.

Oklahoma

City Phone Tax Urged

A RESOLUTION asking the Southwestern Bell Telephone Company to pay a municipal tax "in connection with the exercise of regulatory duties and police powers" by the city has been passed by the city commission.

The demand was said to be in line with similar procedure by other towns in the state, and was made possible through an act of the last legislature. A definite amount was not fixed by the resolution, but it was believed a percentage of the gross receipts would be the basis for payment.

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Tennessee

City Wants TVA Power

THE Chattanooga Electric Power Board has decided to take immediate steps towards acquiring a contract for Tennessee Valley Authority power. Bonds to finance a municipal system have been voted.

Colonel Harold C. Fiske, chairman of the board, said following a closed session that he would notify the TVA that the board is "ready to open negotiations for contract of TVA power."

Knoxville Plant Held Up

A POSSIBILITY that Knoxville may turn to the private money marts of the country for aid and proceed without Federal assistance to build the first unit of its injunction-fettered municipal power distribution system was seen recently.

In mid-July a state chancery court had

ruled that the city shall continue to be temporarily enjoined from using a \$2,600,000 loan-grant to build the power network, on grounds that such a loan-grant was unconstitutional. Later on the chancellor of the court announced that he had modified the original temporary injunction granted to the Tennessee Public Service Company in such a way that the city might obtain funds from any source other than the Tennessee Valley Authority and continue with construction if it so desired.

The chairman of the city council, W. A. Cockrum, immediately called the council power committee to discuss with other city officials and attorneys the feasibility of obtaining private capital for the project. He indicated, however, that if this course should be undertaken, it would be only for the first (North Knoxville) unit of the system, and that while work was in progress on this unit the city would still be fighting in the higher courts for a reversal of the chancery court's decision.

Utah

Water District Election

A UNIFORM special election early in August to set up Metropolitan Water District units in Salt Lake and Utah county areas expecting to benefit by the proposed Deer creek reclamation project was a probability as the city commission prepared to enact a new election ordinance.

Members of the Provo River Water Users' Association, representing Utah county units of the Metropolitan water district met with Salt Lake representatives, to arrive at a common date for holding the special election which will

determine whether the units wish to organize as a taxing structure to finance the \$10,500,000 Deer creek undertaking.

The supreme court of Utah, in a 3-2 ruling handed down recently, upheld the constitutionality of the Metropolitan water district, paving the way for the holding of special elections.

Only the possibility of a petition for a rehearing on the matter can delay an election now. An application for rehearing would hold formation of the district in abeyance, pending a final ruling. This, however, was considered a remote possibility.

Washington

New Power Line Construction

THE immediate expenditure of approximately \$200,000 for the construction of a 66,000-volt transmission line from Ariel to Longview was announced by the Washington Gas & Electric Company and the Inland Power & Light Company.

Ralph T. Smalley, general manager, released the announcement on behalf of the Longview firm and Paul B. McKee, president of the Pacific Power & Light Company,

which, like the Northwestern Electric Company, is an affiliate of the Inland Company, announced the development for the Pacific Company.

The arrangement will make available to the Longview utility surplus energy from the gigantic \$8,000,000 hydroelectric plant on the Lewis river at Ariel and will ultimately afford a direct connection with feeder lines from Bonneville dam, if and when electricity from the government project is released through private utilities.

The Latest Utility Rulings

Stockholders' Rights in Rate Case

THE Wisconsin commission in ordering an electric rate reduction has noticed petitions filed by representatives of preferred stockholders requesting the commission to consider their status before ordering any further reductions in rates.

The petitions stated that the preferred stock, as well as other securities of the company, was issued with the approval of the commission. In view of this approval they understood or were led to believe that dividends on the preferred stock were assured indefinitely if not actually guaranteed. The commission believed that these petitions called for some response in order to correct any misapprehensions in the minds of the petitioners.

The commission recognized its duties and obligations to both the customers and the security holders but it declared that the state in no way provided that

approval of the issuance of securities represents a guaranty that earnings will at all times be sufficient to meet the interest and dividend requirements of these securities. The opinion continued:

An approval of securities by this commission is chiefly an indication that an equivalent in property value, based on then existing prices, has been acquired. The law further provides that a utility is permitted to earn a reasonable return on the fair value of its property if it can do so with rates not exceeding the reasonable value of the service. We take judicial notice of the fact that representatives of the utility industry have asserted in other connections that a regulated fair return on fair value of the used and useful assets, not interest and dividend requirements, is their due and is sufficient protection to consumers. But such fair value of the property at a future date may be different from the value of the property at the time securities were issued.

Re Wisconsin Power & Light Co. (2-U-1).



Interlocking Directorates Denied Approval

APPROVAL of applications by several officers and directors of communication companies for authority to serve more than one company has been denied by the Federal Communications Commission on the ground that the applicants had not sustained the burden of proof to show that neither public nor private interests would be adversely affected by such authorization.

A provision of the Communications Act of 1934 dealing with interlocking directorates provides that after sixty days from the enactment of the act it shall be unlawful for any person to hold the position of officer or director of more than one carrier subject to the act

unless such holding shall have been authorized by order of the commission upon due showing that "neither public nor private interests will be adversely affected thereby." The commission said in part:

In all of the instant applications, except those relating to the Western Union Telegraph Company and the Mexican Telegraph Company, there is shown the desire by a holding company, or holding companies, to dominate and control the operating companies through the selection of interlocking directorates and officers. The commission is aware of this method of dominance in a great many business organizations at the present time. Likewise, there are agreements entered into between a number of these companies which agreements are dic-

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tated by the holding companies. . . .

In the proceedings under consideration, the classes of carriers over which the commission has jurisdiction, are involved, to wit, telephone, telegraph, and radio organizations. Some of the companies for which interlocking is sought are peculiarly competitive. They are all engaged in the communications business, and, in a sense, are generally competitive, and in all three of the classes mentioned, holding companies are involved.

No interlocking should be allowed in systems where the holding company and its subsidiaries together have a monopoly in their field of joint service; and particularly no interlocking should be allowed where in the joint field of service the top company has facilities for competing with the subsidiary company.

Commissioner Stewart, in a dissenting opinion, expressed the view that the majority had incorrectly interpreted the section involved, had erred in not fol-

lowing the interpretation "uniformly applied to the corresponding provision of the Interstate Commerce Act," had defeated the intent of Congress in leaving discretion with the commission, had placed an absolute bar where Congress refused to place one, and, in the light of the conditions surrounding the present applications, had done "an absolutely futile thing." He believed the cost of doing business would be increased and service would be impaired.

Commissioner Brown, in a dissenting opinion, said that these corporations made up one single operating unit, and it created an anomalous situation if the several states made the corporations necessary when the commission denied their operation as a single noncompetitive system. *Re Interlocking Directorates* (Docket No. 2700).



Obsolescence a Factor in Street Railway Valuation

THE New York commission, upon reconsidering the petition of the Yonkers Railroad Company for a fare increase, after the appellate division of the supreme court had remitted the proceeding to the commission, has again denied increased fares, by a 3 to 2 decision.

Chairman Maltbie, writing the majority opinion, discussed the criticisms of the court relating to overhead items, working capital, property not owned, accrued depreciation as related to annual depreciation, and going value. New conclusions were reached, and it was determined that the company was earning from 6.4 per cent to 7.8 per cent according to the basis used.

The commission, in its former decision, had made an allowance for working capital virtually amounting to an allowance for materials and supplies without any allowance for working cash, in view of the fact that funds are collected before payments are made for labor, salaries, materials, and other costs covered by operating expenses. The

court criticized the denial of an allowance for "working capital," apparently used as synonymous with "working cash."

Chairman Maltbie analyzed the collections and disbursements of the company, finding that the average passenger revenue per week is more than twice the weekly payroll; that nearly two thirds of the damage claims are not settled until at least a year after the accident occurs; that several items of operating expenses are not paid until the end of the month; and that the company does not provide any working cash capital to conduct the business, but that funds are provided by the traveling public through the payment of fares in advance of disbursements.

He concluded that the only allowance which should be made for working capital would be an amount representing necessary materials and supplies. This allowance was much lower than in the former decision. An additional allowance for working capital was made, however, in connection with

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rolling stock, which had formerly been excluded from the rate base.

The commission fixed the value of rolling stock rented from affiliated companies instead of allowing as an operating expense the rental charged for such equipment. The court had decided that property used and useful, whether owned or not, must be included in the rate base. Chairman Maltbie said, however, that the inclusion of the amount paid for rentals was "the natural, obvious, and usual course followed in rate cases."

Obsolescence of street cars was considered in fixing their value. Testimony had been introduced to the effect that such cars would not be reproduced. The court had stated that the question of whether or not the property would be reproduced if it did not exist was not before the public service commission for decision. Chairman Maltbie said, however:

As a separate and distinct matter unrelated to values, it would be an academic

question, but it does have a direct bearing upon property values. If an item of property is of such character, either because of obsolescence or inadequacy or expensive maintenance costs or high operation charges or any other factor, that it would not be reproduced or constructed if it did not exist, the very factors which so determine have a direct effect upon its values; and they should be considered by anybody in determining values.

If there were no other passenger car which could be operated at less expense, consuming less power, capable of greater speed, or more desirable for any reason, these cars would have a much larger value than they actually have; but the moment another car is designed and its practicability established which can be operated at a lower total cost, that fact apart from all other considerations necessarily affects the value of the old car. If a new car is designed that can be operated at greater speed, that fact by itself depreciates the old car. If the new car consumes less power, that fact depreciates the old car; and if the new car has less weight and consequently reduces the cost of track maintenance, that fact depreciates the old car.

Re Yonkers Railroad Co. (Case No. 6364.)



Reproduction Cost Methods of Texas Commission

THE Texas commission, in fixing new rates, on appeal by a gas utility from a municipal rate ordinance, has announced views on various aspects of the reproduction cost theory. For example, the commission disapproved the theory of reproducing the distribution system upon the basis of 50 per cent wholesale construction and 50 per cent piecemeal construction. There was no testimony that the distribution system was so constructed, and the commission assumed that the plant would be reproduced 100 per cent wholesale.

The commission also assumed that the company would itself reproduce the property instead of having an independent contractor, and for this reason no allowance was made for contractor's profit or contractor's bond.

Collateral construction costs, which would be incurred if the system should be reproduced, were allowed, but the

commission declared that in the determination of a rate base the reproduction cost new estimate should be calculated upon the assumption that the company's own engineers, auditors, and attorneys would do the engineering, auditing, and legal work.

The allowance for depreciation expense was limited to an amount necessary to keep the property in good operating condition with an additional allowance to accumulate on a 5 per cent annuity basis a fund sufficient for a rehabilitation program which would be necessary in about twenty years. The commission disapproved the theory that the customers should provide a fund that would enable the company to keep the property in good operating condition and at the same time accumulate a fund in order that the investors might be reimbursed at the end of the estimated life of the property.

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The city gate rate was reduced from the contract price, and the commission eliminated such operating expense items as cost of trustees' services in connection with bonds, transfer fees, merchandising expenses, an unsupported management fee, donations, dues, and uncol-

lectible accounts. It was explained that the company required each customer to put up a reasonable deposit, and therefore no allowance should be made for uncollectible accounts. *Texas Cities Gas Co. v. Waco (Gas Utilities Docket No. 101)*.



Change in Law Eliminates Prudent Investment Theory

A WASHINGTON statute, under which the commission valued public utility property for several years, gave the commission specific directions as to how the commission should proceed in the matter of fixing value. The commission adopted the prudent investment method, and this method was approved by the state supreme court. That court refused to follow Federal decisions that fair value rather than prudent investment must be used as the rate base. It distinguished them by saying that in other states the statutes governing the regulatory bodies did not prescribe the rules by which the properties were to be valued, and the regulatory bodies and the courts were less free to adopt such rule of valuation as would best accord

with the justice of a particular case.

A new regulatory statute adopted in 1933 omitted specific directions to the commission and enlarged the powers of the commission and granted it more independent judgment in the matter of valuation and rate making for public utilities. A superior court judge has now held that, viewing the matter in the light of the present statute, the court must now apply the rule formerly rejected concerning fair value. The court held that the commission had properly valued the property after a consideration of reproduction cost, using spot prices rather than average prices. *State ex rel. Oregon & Washington Water Service Co. v. Department of Public Works*.



Uniform Student Fares in Twin Cities Denied

A PROCEEDING instituted at the request of the council of the city of Saint Paul, Minnesota, to determine whether students of the University of Minnesota should be allowed uniform street car fares from both Saint Paul and Minneapolis to the university has been dismissed.

The plea was made that students living in the city of Saint Paul should not be required to pay two fares for each trip to the university, which is located in the city of Minneapolis. A single fare was proposed for riding over the Saint Paul City Railway Company lines and the lines of the Minneapolis Street Railway Company.

The commission held that it was without authority to establish the classification requested in view of the provisions of the regulatory law providing for reasonable fares "within any city" and the same fare "in the city."

The street railway companies submitted that even though the law permitted the desired classification, an unlawful discrimination would result with a further decrease in revenues, which were not now adequate to provide a fair rate of return. The commission did not pass on this contention because of its finding that it was without authority to establish such a classification. *Re Saint Paul City Railway Co. et al. (A-5029)*.